

Chapter 2

Policy Issues and Options

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evitable change. Three such goals might be to: 1) expand services to displaced workers and put a stronger emphasis on training, 2) improve the skill level of the U.S. work force in general, and 3) enlarge the information base both for programs that serve displaced workers and for those that help Americans prepare for work-life transitions.

Expanding Services to Displaced Workers and Emphasizing Training

First, there are policy choices to be made on how many displaced workers government-sponsored programs should try to reach, and how much emphasis retraining should receive in the mix of adjustment services offered. In the first years of the new JTPA Title III program, only a small proportion of eligible displaced workers—probably less than 5 percent—received Title III services. It also appeared that most programs focused strongly on placing workers promptly in new jobs, with less emphasis on retraining and other relatively expensive services, such as relocation. In projects strongly committed to training, as many as one-third of participants may enroll, and costs per client are typically \$2,000 or more. In the JTPA transition year, ending June 1984, the Title III program cost per client was \$768; in the 1984 program year, ending June 1985, the cost per client was \$895.³

If Congress wishes to support a broader displaced worker program, designed to attract more participants and enlarge training opportunities, it might consider a package that includes: 1) aggressive outreach, including crisis response teams that help deliver adjustment services in plants which are closing or undergoing mass layoffs, starting before the layoffs begin; and 2) a stronger emphasis on retraining, including extended income support—up to 1 year or more, at the level of unemployment insurance benefits—for displaced workers and

displaced homemakers who are enrolled in training needed for employment. Training would include, for those who need it, remedial work in reading and math skills.

The costs of a Title III program extended to more people, combined with a stronger commitment to retraining, would be considerably higher than present program costs, although benefits to the workers involved and to society would also increase. A nationwide program of aggressive outreach, including pre-layoff assistance, might cost the government about \$30 to \$50 million per year, depending on how much is contributed by the private sector and assuming that the services would reach about 300,000 people annually.⁴ However, savings gained from more effective service delivery could offset some of these costs. Benefits in the form of faster reemployment of displaced workers, and less spending for unemployment insurance and income transfer payments, might also offset costs.

The costs of greater emphasis on retraining, though they cannot be figured precisely, are likely to be substantial. Benefits would be gained when the training begins to pay off in higher incomes for the retrained workers, more taxes paid on their incomes, and less need for transfer payments. More effective outreach might attract many more displaced workers to the Title III program. The Labor Department currently uses a planning figure of 150,000 per year for displaced workers expected to receive Title III services. Assuming that aggressive outreach raises the figure to about 300,000 per year and that 20 percent of the extra participants opt for training, at a cost of \$2,000 apiece more than the current average cost per Title III client, the additional cost would be about \$60 million per year. This compares to \$223 million appropriated for all Title III services in fiscal year 1985, and \$100 million for fiscal year 1986.

In addition, if 5 percent of displaced workers—say 15,000 people—opted for extended training and received income support for one

³The Title III program cost per client given here is the Federal portion. For three-quarters of Federal Title III grants, matching funds are required; they may be public or private, in cash or in kind, and may include a wide variety of items, including unemployment insurance payments and the employer's share of subsidized wages for workers getting on-the-job training.

⁴Information on costs of various elements of displaced worker programs is summarized in later sections of this chapter, and is discussed more fully in chs. 5 and 6.

year, the extra cost (beyond the average unemployment insurance benefits paid to unemployed workers now) would be about \$47 million. Most displaced homemakers do not qualify for unemployment insurance. Income support for them during training—even at the modest level of \$119 per week, the average unemployment insurance payment—could imply substantial outlays. For example, if 20,000 displaced homemakers per year chose this option, the cost would be about \$124 million.

Given the likelihood of higher Federal spending if a more aggressive program of assistance to displaced workers is adopted, Congress might wish to consider alternative funding mechanisms for this option. For example, legislation has been proposed in the 99th Congress that would impose a small duty on imported goods, and earmark the proceeds for assistance to workers losing jobs on account of trade. If Congress believes the import duty concept has merit as a way to finance adjustment assistance, it might want to consider making all displaced workers eligible for assistance funded by the import duty—not just those displaced by trade. As discussed throughout this report, especially in chapters 8 and 9, the effects of trade, technological change, and changing consumer preference are so interrelated that singling out one as the cause for particular cases of displacement is always difficult, often impossible. Another possibility to consider would be a small payroll-based tax for financing the retraining of displaced workers,

An import duty or payroll tax might not be considered appropriate for financing services to displaced homemakers. Yet an argument can be made that both individual employers and the competitive position of the American economy benefit from having available well-trained, competent workers, offering skills that are in demand. Thus, opening programs financed in these ways to displaced homemakers might be a possibility.

Improving the Skills of the Work Force

A second major goal that Congress may wish to consider is a vigorous program to improve the skill level of the U.S. work force. The pur-

pose would be to increase the competitiveness of American firms and, at the same time, to protect the earning capacity and standard of living of American workers. Instead of reacting to displacement after the fact, this set of options would try to prevent it when possible, and otherwise prepare for it so as to mitigate its painful effects. An aggressive program in support of this goal could include: 1) greater emphasis on improving reading, math, and other basic skills of adult workers; 2) support for research, development, and evaluation of technologies that effectively help adults learn both basic educational skills and specific technical skills; 3) transfer of federally developed education and training technology to the public education system and to private businesses; 4) support for programs that help adults continue their education and training on their own initiative; and 5) support for the retraining of active workers by employers.

The costs to the Federal Government of achieving this goal are difficult to determine, even roughly, but would certainly be substantial. For example, the most important Federal program for adult basic education supports State and local projects that serve between 2 million and 2.6 million people per year; these figures are small compared with a frequently cited estimate that more than 25 million American adults are functionally illiterate. While that estimate should not be accepted uncritically, it is clear that current programs serve only a fraction of adults who need basic education. Federal expenditures for the program in fiscal year 1985 amounted to \$102 million (\$38 million less than the law authorized]. States typically contribute an equal or greater amount than the Federal Government contribution. It is not clear how many more adults would enter the program if more emphasis were placed on outreach. Even with expanded outreach, it is unlikely that all of the people with basic skills deficiencies would be reached.

Instructional technologies, such as computer-aided instruction and interactive videodisk systems, hold high promise for adult education and for training of workers by private employers. An expanded Federal role to encourage use of instructional technologies for basic skills and

technical training would entail some additional expenditures, but these costs could bring benefits (e.g., faster program completion by adult participants). Most courseware now used for adult basic education was developed for high school students or young adults. Thus, Federal support for research and development of courseware for basic skills might focus on mature adults. In addition, a specifically designed mechanism for transferring Federal training technologies and materials to the private sector and public educational institutions could be adopted, to give training technologies greater visibility than they have under existing, generic mechanisms for transfer of federally developed technologies. One legislative proposal would fund a mechanism of this kind at \$3 million per year. Several other options for improving work force skills (e. g., greater support for individuals' continuing education, a tax credit for employers who offer increased training opportunities to their workers, and possible use of a small payroll-based tax to finance training and retraining activities) could also be considered. The costs to the Federal Government for some of these options (e.g., a tax credit) would depend largely on employer and employee responses to the incentives.

Improving Information

A third major policy goal for Congress to consider is improvement of information, so that training and employment programs are better matched with the needs of the labor market and can serve workers more effectively. For whatever other major goals Congress might decide to undertake, better knowledge is basic. Compared with the extra costs of active programs to serve more displaced workers or to

upgrade workers' skills, costs of better information appear to be relatively low—in the tens, not hundreds, of millions.

An improved information program could include these elements: 1) more frequent and more detailed reports on how many workers are being served in Title III programs and what kind of services they are getting; 2) annual reporting on plant closings throughout the United States, including the numbers of workers affected, their characteristics, and the regions most affected; 3) adequate funds for collection and analysis of better labor market information at the local level, especially on occupations and skills in demand; 4) adequate funds for obtaining up-to-date qualitative information about jobs, for the use of educators, career counselors, training and employment project staff, and people making career choices; 5) evaluation of the employment effects of major technology developments that are federally supported; and 6) funding of a center for research on new ways to organize work and design jobs as technological advances take place.

Specific issues emerging from OTA's examination of displaced worker programs, displaced homemaker programs, and other employment, training, and education services are discussed in the rest of this chapter. A number of additional issues besides those briefly mentioned above are included. They are grouped into five policy areas: 1) delivery of assistance to displaced workers; 2) policy issues affecting displaced homemakers; 3) options for labor market information and research related to occupational change; 4) strategies for facilitating worklife transitions; and 5) the Federal role in research, development, and transfer of instructional technology.

DELIVERY OF ASSISTANCE TO DISPLACED WORKERS

Title III of the Job Training Partnership Act created a new program for offering adjustment assistance to displaced workers. In the brief time the program has existed, displaced worker projects have been launched in nearly all States.

As in any new program, initial difficulties have been apparent in some States and projects. While some of these difficulties have been overcome with experience, other problems are more fundamental.

Overall, on the basis of currently available data, it appears likely that fewer than 5 percent of displaced workers across the country participate in JTPA projects. The reasons why people fail to participate are difficult to document, but they probably include lack of knowledge about the existence of programs, failure of some projects to offer services in demand locally, and relatively low demand for services during a period of economic recovery (as in the first years of the Title III program, 1983-85). Some of the approaches emphasized below, such as greater emphasis on outreach and pre-layoff services, can be expected to increase participation in displaced worker programs.

The low participation rate of displaced workers in Title III projects suggests caution in drawing simple relationships between funding for the program and the rate of unemployment. An aggressive outreach effort that attracted more participants could also require increased funding for the program—even if unemployment should decline. Conversely, if nothing is done to improve participation levels, funding levels will remain modest, but only a small portion of displaced workers who could benefit from JTPA services will be assisted by projects.

OTA's review of the experience so far with displaced worker projects indicates that several issues related to delivery of assistance merit consideration: 1) improving abilities to respond rapidly to plant closings and mass layoffs; 2) encouraging prompt reemployment, possibly through temporary wage supplements or relocation; 3) enhancing education and training opportunities in displaced worker projects; and 4) improving information, reporting, and monitoring under JTPA Title III programs. Specific options for improving adjustment assistance in JTPA Title 111 programs are discussed below, and summarized in tables 2-1 and 2-2. In addition, questions about Trade Adjustment Assistance, the special program to assist workers displaced by competition from imports, are also discussed.

Rapid Response to Displacement (Issue Area 1, Table 2-1)

Experience so far with displaced worker programs strongly suggests that the best time to begin assistance to workers is before layoffs actually occur. Although not every worker will take advantage of the services early, having them available is important to boosting morale and offering training while workers are still eligible for the maximum amount of unemployment insurance and other forms of income support. Moreover, many workers will use job search assistance to find new jobs before the layoffs begin, so that their employment is never interrupted. Advance warning of layoffs makes it possible to take constructive action early; but unless it is associated with other measures to assist the displaced workers, it maybe of only limited benefit to them, while possibly imposing added burdens on employers.

While JTPA authorizes pre-layoff assistance, only a few States have developed institutions to deliver services before layoff in any systematic fashion. In the event that Congress wishes to place greater emphasis on pre-layoff assistance, several options are available, including: 1) legislative guidance (through JTPA oversight or appropriations directives) to focus greater attention on pre-layoff assistance efforts (option 1a in table 2-1), 2) creation of a consultative service to encourage cooperative efforts by labor and management to offer pre-layoff assistance (option 1b), and 3) encouragement of early notice of mass layoffs and plant closings (option 1c). These options are not mutually exclusive, but could be implemented independently. Pros and cons of the individual options are discussed below.

An adequate, up-to-date count of plant closings in the United States does not exist, but most State directors of JTPA Title 111 programs reported that plant closings were continuing, in some areas accelerating, during 1984 and

Table 2-1.—Selected Options for Improving Adjustment Assistance in JTPA Title III Programs

Issue area and Options	Relationship to other options	Relationship to current policy	Estimated cost of option to Government
<i>Issue Area 1: Improving rapid response to displacement</i>			
a) Congressional action such as oversight effort; or appropriations directives, to encourage greater use of pre-layoff assistance in Title III projects	Although this option could be conducted in conjunction with 1 b and 1c below, it is viewed here as a single option that would entail less extensive action than the other two options	JTPA authorizes pre-layoff assistance, but provision of this service by State Title III programs is hampered by an absence of institutions to provide pre-layoff services and by absence of advance notice of impending layoffs in most States. Legislative guidance and encouragement through the JTPA oversight process might encourage more State action	Implementing this option could increase JTPA Title III services, if pre-layoff assistance were not provided at the expense of current services, additional funding could be needed. Federal funding requirements under this option could depend on State carryover fund balances ^a
b) Authorize the establishment of Federal or federally supported State consultative services to facilitate cooperative labor-management pre-layoff assistance	If adopted nationwide, this option might be more effective if implemented in conjunction with advance notification (option 1c). However, the option could be implemented in selected States on a demonstration project basis (i.e., in those States that already require or encourage notification) or on a voluntary notice basis	Demonstration projects could be conducted by the Secretary of Labor under current authority, using discretionary funds from JTPA. If adopted nationwide, legislative authorization for a small unit in an existing Federal agency, or for support of State-run adjustment services could be considered	Based on experience with a similar program in Canada, such a consultative service might cost about \$171 per worker served. If approach were applied nationwide, the costs could be as high as \$30 to \$50 million per year in Federal funds, depending on how much is contributed by non-Federal sources and assuming that 300,000 workers per year receive services. Selected pilot projects could serve as an initial step in implementing this alternative
c) Require, or provide incentives for, early or advance notification of large plant closings and layoffs	Advance notification (whether voluntary or required by State and/or Federal Government) is needed for pre-layoff assistance of the sort discussed in option 1b. A nationwide advanced notification system could provide information for plant closing and mass lay-off data reports (discussed in option 4d)	There is currently no Federal requirement for advance notification although legislation has been proposed since 1974. One State (Maine) requires advance notice, a few other States (Massachusetts, Michigan, and Wisconsin) have voluntary inducements for early warning of plant closings or layoffs	Costs not estimated, if implemented as a Federal requirement, costs would depend on expenses of establishing and maintaining a new Federal regulatory program
<i>Issue Area 2: Facilitating rapid reemployment</i>			
a) Assisting workers in relocation through i) legislative directive under JTPA to encourage greater use of relocation options, and ii) continued authorization of relocation help under TAA or provision of equivalent benefits under JTPA.	These two options could be adopted singly, or in concert. In general, the emphasis placed on relocation assistance will vary greatly among States and localities depending on prospects for local economic development to create new jobs. In some declining areas, relocation may be one of the few options open to displaced workers. Under JTPA Title III, the emphasis placed on relocation would depend on State program decisions.	The Trade Adjustment Assistance program has provided for relocation allowances to workers certified as displaced by trade, but will expire unless reauthorized. Relocation assistance also is permitted among the range of services authorized by Title III of JTPA, but few projects make much use of this option	Among the few intensive relocation programs now in place, financial assistance to workers ranges from \$650 to \$1,600 per worker, with \$1,050 being the average for TAA. If 10,000 workers were served each year, costs of relocation assistance would be about \$85 million per year for JTPA Title III (assuming average relocation expenses of \$850 per worker). ^a This is about 4% of overall JTPA funding in FY 85. A less expensive option would be to authorize a program of guaranteed or low-cost loans for relocation expenses.
b) Require the Secretary of Labor to submit a report to Congress which examines the costs and benefits of automated State job bank systems, linked in several ways, and compares these with a fully automated, central national job bank system with job-matching capabilities.	If the investigation showed that expanded, automated job banks would be cost-effective, they could facilitate relocation	Section 465 of JTPA authorizes the Secretary of Labor to establish and carry out a nationwide computerized job bank and matching program. Limited steps towards implementing section 465 have been taken by the Labor Department's Employment and Training Administration	The direct costs of conducting a study of the State systems and the national system have not been estimated, but would be minor. If study led to expansion of the system, major costs could be entailed. Cost of establishing a fully computerized nationwide job bank system with job-matching capabilities has not been estimated. By one estimate, it could cost \$241 million over 5 years to bring just data processing equipment in all States up to date. Alternative funding mechanisms (e.g. possible use of ES trust funds) could be assessed in the study
c) Authorize temporary wage subsidies to displaced workers as an inducement to take lower paying jobs with a potential for advancement. One proposal would allow workers to receive (over the course of a year) up to 80% of their remaining UI benefits if they take lower wage jobs than required by the State UI system	Could be implemented independently or in conjunction with options 2a and 2b. For many workers, other options (e.g., relocation or intensive classroom training) offer more promise as a reemployment strategy	Other than in some company-union contracts, no wage supplement programs currently exist. Given the lack of experience with the wage subsidy approach, one possibility would be to demonstrate wage subsidies on a trial basis	Lack of experience with this approach suggests a need for caution in evaluating the costs of wage supplements. Based on assumptions stated in the text, the maximum cost of providing wage supplements under the option would be \$690 more per worker than under current UI benefits. For every 100,000 workers in such a program, costs could be \$69 million above the cost of their UI benefits. Actual costs could be lower if significant numbers of workers who would otherwise remain on the UI rolls until their benefits expired participated in the program

Table 2-1.—Selected Options for Improving Adjustment Assistance in JTPA Title III Programs—Continued

Issue area and options	Relationship to other options	Relationship to current policy	Estimated cost of option to Government
<i>Issue Area 3: Enhancing education and training opportunities in Title III projects</i>			
<p>a) Authorize income support to displaced workers in training programs which extend beyond the 26-week regular schedule for UI benefits, through a targeted program of assistance. An additional 26 weeks of income support at a level equal to UI benefits would make it possible for Title III participants to take 9-month training courses, leaving some time for job searches at the end of the courses. Eligibility for the extended support could be determined at an early point of regularly scheduled UI benefits</p>	<p>In general, it can be expected that more workers will be interested in intensive training programs when immediate reemployment opportunities are limited; the availability of additional income support for displaced workers participating in intensive training could increase the number of Title III participants seeking training.</p>	<p>JTPA Title III does not prohibit a stipend program of income support for workers in intensive training, but stipends are very seldom provided. Some workers may not be able to participate in a long-term training program extending beyond expiration of UI benefits (usually, 26 weeks). Although UI benefit levels are used here to identify costs, additional income support for displaced workers in intensive training could be funded through JTPA Title III or a separate fund (such as has been provided under Trade Adjustment Assistance).</p>	<p>Costs of providing an additional 26 weeks of income support at an equivalent level to UI benefits might average about \$3,094 per worker. For every 7,500 people (5% of the assumed number of JTPA Title III participants) found eligible for extended income support while training, costs of the program would be \$23.2 million. Experience from Canada (which has an extensive training system coupled to income support) and limited data from California suggest that the per worker cost calculated above is on the high side. ^{a,b}</p>
<p>b) Emphasize remedial education services in JTPA projects by:</p> <ul style="list-style-type: none"> i) identifying achievement of basic education skills as a performance standard in JTPA Title III projects; ii) directing States to excuse unemployed people from UI work search requirements while enrolled in intensive remedial education classes; and iii) earmarking a portion of JTPA funds for remedial education in Title III projects. 	<p>These three options could be adopted singly, or in conjunction with each other. Options for remedial education in JTPA projects can also be viewed in the broader context of Federal assistance for adult basic and adult secondary education under the Adult Education Act. (See options for improving basic skills in the active work force, table 2-5, Issue Area 8)</p>	<ul style="list-style-type: none"> i) "Employment competencies " are identified as a performance standard only for JTPA services provided to youths. Adults (either disadvantaged or displaced) are not included. ii) Some States do not include remedial education among the "approved" activities in which participants receiving UI benefits are exempted from work search requirements while in training JTPA specifically exempts Title III workers in full-time intensive skills training from such requirements, but does not explicitly mention remedial education iii) Some State JTPA Title III programs provide little specific funding for remedial education 	<ul style="list-style-type: none"> i) To the extent that additional services (beyond current services) were added, some additional costs could be entailed ^a ii) Same as (i) above, for JTPA. Some additional State UI costs would result. iii) Extra costs for remedial education specifically provided in some of the better Title III projects average about \$200 per worker. For every 30,000 Title III participants needing such courses, and taking advantage of them, the cost would be \$6 million, a little under 3% of the Federal Title III appropriation for FY 85a ^b

^aCosts for the Federal Government of implementing this option may depend in part on whether States carry over substantial unspent, and unobligated Title III funds at the end of program years unspent Title III funds carried over from the program year ending June 30, 1985 amounted to \$1845 million nationwide Amounts earned over differed greatly from one State to another

^b Estimate is derived from the available information about the proportion of displaced workers that are likely to avail themselves of this particular option The Department of Labor uses the figure of 150,000 workers served by displaced worker projects each year for planning purposes, the 150,000 number is used in this chart as a "baseline" figure for the number of workers likely to use Title III in a hypothetical year The actual figure could be higher or lower

SOURCE: Office of Technology Assessment

1985.⁵ Under JTPA Title III, States may offer displaced workers pre-layoff assistance and may support early intervention programs, conducted in cooperation with employers or labor organizations, for plant closures or layoffs that are expected to be permanent. Several States have put considerable effort into rapid response teams. They attempt to find out about impending layoffs and bring reemployment programs to the workers early. Because most States do not require or even encourage advance notice of plant closings and large layoffs, the States that are interested in rapid response try to enlist voluntary cooperation from companies in giving early warning. Many State managers of JTPA Title 111 programs mention as a leading concern the need to learn of large layoffs and plant closings in advance, so they can offer prompt assistance.

In States where rapid response teams exist, the teams typically mobilize and coordinate responses from a number of State and local agencies whenever they learn about an impending plant closing. A team representative may make plant visits, acquainting the soon-to-be-displaced workers with options and available services, such as testing and assessment to determine transferable skills or needs for education and training, job counseling, job search training, and possibly job placement efforts.

How many major plant closings and layoffs are reached by these rapid response pre-layoff efforts is not known. Anecdotal reports suggest that in 1985 many States were not yet prepared to act promptly to news of layoffs. Some companies wishing to provide timely adjustment services to workers they are laying off have sought technical assistance from State Title III programs or local Private Industry Councils (PIC) but have not received a prompt, effective response. The ability of Title 111 programs to provide help quickly to displaced workers is one potential topic for JTPA oversight.

While States can support plant-centered displaced worker projects under JTPA, the law

⁵The U.S. General Accounting Office is analyzing data on plant closings and the number of workers affected by them; the study is scheduled for completion in 1986.

provides no mechanism especially designed to help create such projects. Moreover, no State has yet established any permanent agency to help labor and management establish their own worker adjustment and placement committees. Among the unique advantages of such committees are personal acquaintance with the workers and their abilities, and personal networks for turning up local job opportunities. In addition, unionized workers are more likely to trust and participate in a program that their union is committed to and responsible for. Management participation makes clear the company's commitment to assisting its laid-off workers. Many companies are able to make valuable contributions of space for a reemployment and retraining center in the plant, staff time to operate it, and time off for workers to attend program activities.

Canada's 20-year-old Industrial Adjustment Service (IAS)⁶ provides a model for such a program and evidence that it can work well at moderate cost. Labor-management committees established by the IAS operate placement efforts in most of Canada's major plant closings and layoffs. Except in the depths of recession, the committees have consistently placed about two-thirds of the laid-off workers during the period they are in business (generally 1 year). In Canada's fiscal year 1982-83, IAS-assisted committees offered adjustment services to about 36,000 workers losing their jobs in plant closings and large layoffs. (Translated into terms of the U.S. labor force, which is nearly ten times as large as Canada's, this figure is equivalent to about 320,000 workers served.) The cost to Canada's National Government for the part of the IAS program that serves these workers was roughly \$3.9 million in 1982-83, with contributions from the private sector bringing the total to about \$6.1 million. Canada's economy was in deep recession in 1982-83; costs of the IAS program are reported to be lower in nonrecession years.

Four factors seem to account for much of the IAS achievement. First is the fact that the people who know the plant's workers best, and

⁶IAS was formerly called the Manpower Consultative Service.

also are personally acquainted with other employers in the area, can be highly effective in turning up job openings. Second, the small cadre of IAS field officers (numbering only 66 for labor adjustment services in 1984) have a high degree of responsibility, are not bound by red tape, and respond quickly, usually within a day. Third, each labor-management committee is chaired by an independent, experienced chairman, chosen by the committee from an IAS list; thus, it is not necessary for each committee to reinvent the wheel. Finally, most of Canada's labor force is covered by legal requirements for advance notice of plant closings or layoffs affecting more than 50 workers; this enables the IAS to get an early start.

Because of significant differences in the two programs, Canada's IAS cannot be compared directly with JTPA Title 111 services in the United States. The JTPA program is much broader, encompassing training as well as placement, and it serves a more general population of displaced workers, not just those affected by plant closings and large layoffs. At the same time, at least in its first years, the Title III program served many fewer workers in relation to the size of the labor force. In addition, its measure of performance is looser.

About 177,700 workers were served in Title III programs during program year 1984 (July 1984 through June 1985), including 132,200 who were newly enrolled that year. Of those served, 113,600 had officially left the program—had been terminated, in the language used in State reports—by June 30, 1985. (The rest were still in the program.) Of those terminated, 74,200 were reported to have found jobs. (No information is available about those who were not placed; presumably they left the program while still unemployed.) The entered employment rate reported by the Labor Department for the Title 111 program nationwide for program year 1984 was 65 percent; the figure is based on workers who signed up for the program and were counted as having terminated from it. In Canada's IAS program, placement rates of 66 percent over the years are based on *all* the workers displaced in plant closings or mass layoffs. There are no comparable placement figures for JTPA.

In drawing lessons for the United States from the Canadian experience, an IAS-like program might be regarded as a supplement to, or a part of, the broader JTPA Title III program, not as a substitute. Continuing programs not based in plants would still be necessary, since many displaced workers lose their jobs a few at a time in communities affected by plant closings and layoffs. An IAS-like program, though moderate in cost, would require funding, possibly on the order of \$108 to \$171 in government funds per worker served, depending on how much the private sector contributes. New funds might be provided for such a program, or Title III money might be diverted for it, especially if these funds were exempted from the 5 percent limit the law imposes on State administrative costs of JTPA programs.⁷

Advance notice of layoffs is an important part of rapid response efforts. While some companies try to provide as much advance notice as possible, others provide little or no notice. In the United States, over the past decade, Congress, at least 20 States, and several localities have considered legal requirements for advance notice. Few States, however, have actually adopted such requirements. One State (Maine) currently requires advance notice of plant closings or layoffs affecting more than 50 workers; three (Massachusetts, Michigan, and Wisconsin) have voluntary advance notice laws.

At the Federal level, bills relating to advance notice have been introduced in every Congress since 1974 but none has been enacted. One proposal (H.R. 1616) was brought to the floor of the House in November 1985 and defeated by a close vote, 208 to 203. Some other proposals (but not H.R. 1616) would link advance notice to other requirements, such as provision of severance pay, extended health insurance coverage, and retraining or relocation allowances to the laid-off workers. Some opposition to plant-closing bills may have been based on objections to the cost of these obligations. Of the bills in the 99th Congress calling for advance notice, some (e.g., H.R. 211 and H.R. 1212) also

⁷In late 1985, the U.S. Department of Labor was considering undertaking a pilot program similar to the IAS model in cooperation with a few selected States.

include other employer obligations. However, H.R. 1616 (the bill voted on by the House in the 99th Congress) called only for 90 days advance notice of layoffs affecting 50 or more workers, unless business circumstances made this impossible, with no further obligations on employers except for consultation with employees on alternatives to plant closings. The idea of using the advance notice period for examining alternatives to closure raises a different issue from the options under discussion here, which relate only to delivery of effective adjustment services before layoff.

In the longstanding controversy over a legal requirement for advance notice, opponents have made two principal arguments: 1) that it burdens business, forcing companies to keep ailing firms open longer than is economically efficient, and weakening industrial competitiveness; and 2) that it can have a perverse effect, undermining the morale of the work force and changing terms of business with customers, suppliers, and creditors, thus forcing the closure of some plants that might have managed to stay open.

Those who favor the requirement point to experience, in other countries and in this country under union contracts, where advance notice is the rule. In Canada and a number of European countries, businesses (including U.S.-owned businesses) are able to comply with advance notice requirements. Experience also shows that worker morale can stay remarkably high after a plant closing announcement, *so long as effective readjustment services are offered promptly*. Without this constructive and timely action, advance notice might be disruptive. The two issues are intertwined. Provision of services to displaced workers before layoff is highly desirable; it is hard to accomplish without early warning of layoff; and early warning may accomplish little unless a prompt response is made and high-quality services are provided.

Laws that encourage, but do not require, advance notice are a compromise, and have sometimes won the backing of both sides in the argument. (e.g., both business and labor supported the concept of incentives for advance

notice in Massachusetts; the State law encourages compliance with voluntary guidelines that include advance notice, and bars companies that do not comply from State-guaranteed loans and tax breaks.) In a less formal way, and without rewards or penalties to promote compliance, some managers of State JTPA Title III programs are trying to persuade employers that it is in their own interest to give early warning of plant closures and layoffs. They stress the potential for keeping worker morale high and maintaining good community relations. Although some success has been reported from these efforts—Arizona, for example, says that word-of-mouth reports from satisfied employers have encouraged other employers to cooperate—most States interested in pre-layoff assistance are frustrated by their inability to anticipate the layoffs.

Facilitating Rapid Reemployment (Issue Area 2, Table 2-1)

Most displaced workers seek rapid reemployment when jobs similar to their old jobs in wages and skills are available in their communities. However, many displaced workers are not able to find comparable jobs. Programs such as relocation assistance or publicly funded temporary wage supplements might help these displaced workers get back to work more promptly than they otherwise would.

For displaced workers who take new jobs paying less than the old ones, wage supplements might bridge part of the income gap; the payments would be limited to a fixed transition period during which workers could get experience on the new job and recoup some of their earning power. Except in some collective bargaining agreements, no wage supplement program exists at present. In communities where job choices are few and poor, relocation offers some displaced workers improved chances for satisfactory reemployment. Relocation assistance, including both information and financial assistance, is currently available to displaced workers under Title III of JTPA and to eligible unemployed workers in the Trade Adjustment Assistance program, (Even though TAA's authorization lapsed as this report went

to press, relocation assistance and some other kinds of TAA assistance apparently will continue through the end of fiscal year 1986 under a continuing resolution enacted on December 19, 1985. See subsequent section on TAA for details.]

If Congress wishes to consider the expansion of relocation assistance or the establishment of wage supplements to encourage prompt reemployment of displaced workers, several options are available, including: 1) legislative guidance through JTPA oversight to encourage attention to the relocation option (option 2a (i) of table 2-1); 2) continued authorization of TAA relocation assistance or provision of equivalent benefits under JTPA (option 2a (ii)); 3) direction that a study be conducted on the costs and benefits of expanding the intrastate and interstate job bank system to facilitate relocation of displaced workers (option 2b); and 4) legislative authorization of partial, temporary subsidies to displaced workers accepting jobs at substantially lowered wages (option 2c).

Relocation Assistance

U.S. workers have traditionally been mobile; many still are, especially younger people. However, it is usually true that fewer than 10 percent of displaced blue-collar workers relocate to new areas, even when there is little hope of satisfactory new jobs in their home communities. Many displaced workers are mature or older people for whom the costs of moving are high: selling a house at a loss, paying more for housing in a high-priced boom town, giving up a spouse's job, breaking family and community ties. In fact, the circumstances in which very many displaced workers might choose to relocate are probably limited. Vigorous efforts to help workers relocate are most appropriate in areas of long-term economic decline or in very limited labor markets (e.g., mining communities that once depended on copper, iron, or uranium, where chances of economic revival are remote). Considerable numbers of displaced workers may be encouraged to move from communities where their job prospects are poor, if they can get help in job hunting out-of-area, and financial help with relocation expenses.

On the basis of limited experience from an Employment Service (ES) program in the 1970s and the more recent efforts of a few displaced worker projects, it appears that several kinds of services are needed to support relocation of displaced workers, in appropriate circumstances. These services include: 1) information and counseling about employment and living conditions in other areas; 2) adequate, current information on job openings and assistance in locating suitable jobs for individual workers; 3) financial assistance to help cover the out-of-pocket costs of job searches and interviews in distant areas; and 4) limited aid with moving costs. The costs of moving from a depressed area can be so high that even generous relocation allowances will not fully cover them, but some assistance with moving expenses is an important part of the package.

JTPA does not explicitly set limits on the amount of relocation assistance that may be given to displaced workers, but there are practical limits. Relocation assistance can be quite expensive, and States have other claims on their Title III grant money. In Arizona, for example, where many displaced workers come from copper mining communities, the State Title III program emphasizes relocation to an unusual degree. However, because of funding limitations, the program allows no more than \$650 per worker in financial assistance. TAA relocation assistance is comparatively generous; up to \$800 is allowed for out-of-area job search and an additional limit of \$800 is set for defrayal of moving expenses.

Currently, relocation assistance plays a minor role in most displaced worker programs. In a telephone survey of State managers of Title 111 programs, 22 provided information on relocation assistance; 13 said none of their clients received it. Of the nine that responded positively, only three said they provided the service to 5 percent or more of their clients, or spent as much as 5 percent of their funds on the service. Arizona, with its copper miners, provided relocation assistance to 15 percent of clients; Minnesota, where many displaced workers come from the State's played-out iron mines, provided the service to 10 percent. About 500 workers in these two States com-

bined received relocation assistance in the transition year, October 1983 to June 1984.

Because of the special circumstances in which a strong emphasis on relocation is most appropriate, it is likely that provision of the service will continue to vary a great deal among States. It may be, however, that more workers in a substantial number of States would take advantage of the option if it were offered in more effective form. For planning purposes, the U.S. Department of Labor currently assumes that 150,000 workers per year will be served in Title III programs. For a rough indication of the cost of offering more intensive relocation efforts, let us assume that 10,000 workers per year (distributed unevenly across the country) receive the service. If the cost per worker were midway between \$650 (as in Arizona) and \$1,050 (roughly the average TAA grant in 1984), the overall program cost would be \$8.5 million per year. This is about 4 percent of \$223 million, which was the Federal share of Title 111 program funding in fiscal year 1985. If more effective delivery of all services to displaced workers had the effect of expanding participation, demand for relocation assistance might rise, along with demands for other services.

The figure of \$8.5 million for relocation assistance to 10,000 displaced workers (or \$17 million for 20,000, and so on) may be compared to the cost to the Federal Government of people's adjusting their taxable incomes by subtracting job-related moving expenses. In 1982 (the last year for which figures have been published) taxpayers took adjustments of about \$3.7 billion for moving expenses connected with their jobs. If the average income tax rate of 26 percent is applied to this figure, the loss to the Federal treasury was over \$900 million. The Federal income tax moving adjustment is of very limited help to a workers in low tax brackets; tax credits are in general more helpful to people in low tax brackets than deductions or adjustments.

One option that is not offered either under JTPA or the TAA program is low-cost loans to displaced workers to cover moving expenses. A loan has the advantage of encouraging relo-

cation when that seems to be the best option, without the public's paying for a move that the worker might undertake anyway.

Relationship of the Interstate Job Bank System to Relocation

Theoretically, a nationwide computerized job bank and job-matching system might be helpful to workers contemplating relocation, since it could acquaint jobseekers throughout the Nation with current job openings, and acquaint employers with applicants who may fit their needs. Such a system was authorized by JTPA but does not yet exist, although the Labor Department's Employment and Training Administration (ETA) has taken some steps in this direction. Two considerations suggest caution in trying to make the Interstate Job Bank listings more comprehensive and more fully automated: 1) the cost of doing so, which has not yet been estimated; and 2) questions as to how much the service would be used. On the other hand, a current, complete system of job listings might serve a broader range of jobseekers, and do it more effectively, than the partial system that now exists.

The Interstate Job Bank in Albany, New York, was opened by ETA in July 1984, replacing the 5-year-old Interstate Clearance System. The bank operates as an exchange center for job orders in State ES systems throughout the country. Evidence of expanded coverage over the old system is that 44,700 job openings were listed in the bank in 1984, compared with 1,500 the previous year. The Interstate Job Bank is not, however, the complete nationwide system envisioned in the law. It is quite limited in coverage, has no job-matching features, and is by no means fully computerized.

Listings with the Albany Interstate Job Bank now consist largely of hard-to-fill jobs, most of them professional and technical, selected for inclusion by State ES systems. The idea behind the selection is that the bank serves workers considering relocation, and lower level jobs are thought to hold little attraction for people considering moves (and, conversely, blue-collar workers without special skills do not ordinarily consider relocation).

No attempt is made in the Interstate Job Bank to match job orders with clients whose applications are on file in ES offices throughout the country; instead, job matching is done in the local ES offices. Connections between the State systems and the interstate bank are only partly computerized. All but six States send in their job orders by mail, and all but one receive the listings back by mail; only Nevada has two-way telecommunications links with the Albany center. Allowing time for mail deliveries and updating of the listings, the turnaround time from State ES systems to the interstate bank and back again is at least 8 days, probably more often 10. A one-way telecommunications link, such as five States now have to the bank, can reduce the lag time to as little as 2 or 3 days. A two-way link, like Nevada's, allows same-day communication.

Two questions are at issue in upgrading the present Interstate Job Bank. One is faster communication, so that job orders are listed quickly and removed quickly when the jobs are no longer open. The other is broader coverage. An on-line, instantly reactive, dial-up job bank system, covering all the jobs in the ES systems, is feasible technologically. However, it would require upgrading of automation in State systems. Not all statewide job banks are automated; in those that are, automation is present in varying degree; and the systems are not always compatible. To build a unified system would almost certainly require scrapping some of what is already in place.

No detailed estimate of the cost of a comprehensive, nationwide, computerized on-line system has been made. The costs would have to include not only the hardware (computers and telecommunication lines), but a software system, plus staff time for training, operation, and maintenance. Altogether, the system would clearly cost a good deal more than the mail-in system most States use now, at least for the period when capital investments are being made and training costs are at a peak. In 1984, the Interstate Conference of Employment Security Agencies estimated that it would require an investment of \$241 million over 5 years to bring the data processing equipment of all State

Employment Security systems up to date; this figure includes only the cost of the hardware (modern mainframe computers, desk terminals, and disk storage technology). The estimate covered data processing needs for unemployment insurance and labor market information as well as for the Employment Service.

One alternative for improving the existing Interstate Job Bank is for all States to transmit data one or both ways by telephone line, rather than by mail, as most do now. This could reduce delays in listing and removing job orders. No cost estimate of this alternative is available. Another, more fundamental, alternative would be to put efforts first into upgrading State job banks and matching systems. At present, Missouri is the only State with a fully automated "paperless" system. If other States developed similar systems, communication among them on job openings and qualified applicants could be accomplished either by networking the State systems or, in a more rudimentary fashion, by making each State system available for electronic query by an office in any other State. In either case, a degree of commonality would have to be designed into all the State systems. As noted above, the capital cost of installing modern equipment in all States has been estimated at \$241 million over 5 years. This amounts to \$48 million per year, and is about 6 percent of the current \$770 million annual budget for basic services in the ES system. The costs of telecommunication equipment, software development, and staff training time are not included, but neither are the savings in operation and maintenance that ES systems probably would reap from using modern equipment.

The principal criticism of a nationwide, comprehensive, computerized job bank is its potential cost in relation to benefits. Since the ES system is entirely federally supported, upgrading the present interstate bank (or intrastate banks, for that matter) would require either added Federal funds or a redirection of present resources, with possible sacrifice of other ES services or closure of some ES offices. Federal support for ES and unemployment insurance is provided through a system of trust funds. Possibly, job bank improvements might be

funded through the use of trust fund money without necessarily raising taxes directly. However, the issue is complex and would require study. A significant question is what type and what level of improvement would be worth the cost, regardless of how funded.

It is not certain that an improved interstate bank would improve the functioning of the labor market, since many of the job orders flowing into ES offices call for very limited skills and pay low wages. These jobs often have limited appeal even for local workers, not to speak of workers in distant places. Hard-to-fill professional and technical jobs that might have national markets are already entered into the Interstate Job Bank. Whether even these jobs listings are attractive to workers considering relocation is uncertain; often the jobs are hard to fill because the pay they offer is relatively low. In addition, it maybe questioned whether there is a need for professional jobs to be covered in a publicly financed labor exchange system, since there are many private exchanges (including nonprofit ones, such as professional associations) serving them.

An argument in favor of broader coverage of listings is that blue-collar and other lower paid workers are often more willing to relocate when they are given practical help in getting jobs at the other end. Adequate information about job openings, although not sufficient by itself to encourage relocation, is one part of the necessary help. An interstate bank that lists a broad range of jobs might be used cooperatively by ES offices and displaced worker projects to encourage relocation out of depressed areas into areas where jobs are going begging. The enhanced effectiveness and reputation of a more comprehensive, quickly reactive interstate ES system might attract more job orders from employers, leading to further improvement of the system. The same might be true of the intermediate step of up-to-date computerization of intrastate job banks.

Some bills before the 99th Congress call for greater attention to upgrading the Interstate Job Bank or intrastate banks. One (H.R. 670) would authorize \$50 million per year for 4 years to develop and implement computerized job bank

systems in each State, using software that is compatible with other systems in so far as possible. Another (S. 1033) calls for establishing a nationwide job bank and job-matching program in connection with employment services for veterans.

Another bill (H. R.1219) takes a different approach, calling for a study to determine if the benefits of a highly sophisticated national job bank would outweigh the costs. The proposal would direct the Secretary of Labor to submit a report to Congress on such a bank's feasibility and costs, containing information on: 1) the extent to which the nationwide job bank and job matching system authorized under JTPA could be expected to increase employment opportunities in each State; 2) the estimated cost of making such a system fully operational; 3) the extent to which development of the system would require changes in the existing ES operations of each State; and 4) the feasibility of using nonprofit privately operated job-referral services for low-skill jobs in low-wage industries, rather than using the State ES offices or a nationwide computerized job bank and matching program. Any study of the benefits of an automated national job bank should compare a centralized, national system with several ways of linking individual automated State systems.

Wage Supplements

Many displaced workers find rapid reemployment only in jobs that offer substantially lower pay than their old jobs. This is a common burden of displacement. In recent years, at least 30 percent of adult workers who found new full-time jobs after displacement took pay cuts of 20 percent or more. Temporary, partial supplements to the wages on a new job have been proposed as a way to ease the transition for some displaced workers.

If temporary supplements to wages on lower paying jobs were available, some workers might be inclined to seek reemployment sooner, with the benefit to themselves of getting back to work, getting experience in new jobs, and gaining time to recoup some of their former earning power. Additional benefits to society might

include a smaller overall bill for income support payments. This outcome is not certain, however; the cost of wage supplements might exceed present costs of income support programs. There has been very little experience with wage supplement programs—certainly none on a national scale. The only such programs in existence are those in a few company-union contracts which allow the use of supplementary unemployment benefits to temporarily bring wages on a new job close to the level of wages on the old job.

One suggestion for government action is to establish a special trust fund for wage supplements, limited to a fixed transition period and available only to older, more experienced workers. Another is contained in a bill in the 99th Congress (H.R. 758) which proposes, among other things, to offer supplemental payments from the unemployment insurance (UI) trust fund to workers who take jobs at a lower wage than is required under their State's UI law. The payments could amount to as much as 80 percent of the UI benefits an unemployed worker is eligible to collect, and could last as long as a year. No cost estimates are available for these proposals. They might prove to be quite costly, especially if they attracted large numbers of new participants to the Title 111 program.

A cost estimate for a hypothetical wage supplement program may be roughly calculated. For every 100,000 workers receiving a wage supplement, the cost might be about \$70 million per year, assuming that these workers receive 80 percent of the full benefits for which they are eligible. The calculation is based on the average UI benefits received by U.S. workers in 1984 (\$119 per week for 15 weeks) and the maximum duration of UI benefits in nearly all States that year (26 weeks). The number of recipients of a wage supplement would depend strongly on the exact terms of the program. With 30 percent of reemployed displaced workers taking pay cuts of at least 20 percent, the number could be high.

A wage supplement program, though novel, might be viewed not as entirely new, but as an alternative use of unemployment insurance to encourage faster reemployment. The program

might also be regarded as somewhat analogous to subsidies paid to employers in on-the-job training programs. In any case, because of the large uncertainties as to levels of participation and costs, if Congress is interested in the proposal, a trial or demonstration program might be the most practical first step.

Education and Retraining Under Title III (Issue Area 3, Table 2-1)

Several issues have arisen about education and retraining in JTPA Title III programs, including: 1) uncertainty about how much emphasis is being placed on classroom skills training in Title 111 projects, 2) possibly providing extended income support for workers enrolled in skills retraining courses, and 3) giving greater attention to the remedial education needs of displaced workers.

Inadequate Data on Formal Training in Title III Projects

In some of the better displaced worker projects, a substantial minority of participants—perhaps as many as 20 to 30 percent—choose training in a new skill or occupation, seeing the retraining as an important avenue to a good job. Depending on local job opportunities, demands for training may vary; it appears that more workers opt for formal training during recessions than during prosperity, when immediate reemployment prospects are good.

Some concern exists, however, that JTPA Title III programs may be overemphasizing immediate placement, at the expense of skills training. Although classroom training is expensive, it may best serve the long-term interests of some displaced workers. With the information currently available, it is difficult to tell how much training and education is being offered in Title III programs. The Labor Department does not require States to provide detailed breakdowns on the number of participants and the funds spent for each of the services provided in Title III projects. The question of whether adequate emphasis is being placed on classroom training services is, therefore, a potential topic for congressional oversight. It

seems unlikely that detailed information about the mix of services provided under JTPA will become available unless Congress specifically requires the Labor Department to instruct States to provide the information. This information could be a required component of an expanded State reporting system under JTPA, discussed in a subsequent section of this chapter. (See options 4a, 4b, and 4c in table 2-2.)

Income Support Alternatives for Workers in Intensive Training

For most workers, unemployment insurance benefits are the primary source of income during training. JTPA directs States to exempt displaced workers who are enrolled in eligible training activities from the work-search requirements of the UI system.⁸ Many skills retraining courses offered to displaced workers are brief, lasting only a few weeks, in order to fit training and job search assistance into the regularly scheduled 26-week duration of UI benefits,

While these short-term courses may be sufficient for training in some skills, some displaced workers who could benefit from longer, more intensive training courses may not be able to participate without income support lasting longer than UI benefits. Unlike the TAA program, which has provided up to 52 weeks of income support to eligible workers while they are in approved training, stipends for displaced workers in training are rare under JTPA Title 111.

Several ways to provide additional income support to displaced workers in longer term training have been proposed in recent Congresses. Some proposals would give supplemental Federal unemployment compensation

to unemployed workers who continue in JTPA-funded training after their regular UI benefits expire. Another approach is to encourage States to expand eligible training activities for workers receiving UI benefits. Still another approach is to permit displaced workers to use penalty-free disbursements from Individual Retirement Accounts for tuition expenses while they are training. Finally, some bills would give displaced workers and displaced homemakers greater access to Federal student aid assistance.⁹

If Congress wishes to pursue the concept of offering additional income support to displaced workers in extended training programs, the question of containing the costs could be critical. One way to keep costs down would be to target the available assistance only to those who have demonstrated a commitment or need for extended training. In a targeted approach, eligibility for extended income support probably should be determined for most workers before the half-way point of their regular UI eligibility. (See option 3a in table 2-1.)

If screening of this sort were employed, what would be the likely costs of offering targeted assistance to displaced workers in extended training under JTPA Title III? Assuming that each worker in intensive training needed 1 year of income support (9 months for a classroom training course plus some leeway at the beginning and end of the course), an additional 26 weeks of income support beyond the usual 26 weeks would be needed. If the added income support were equal to regular UI benefits, the additional cost would average \$3094 per worker. (While UI payments have been used as the basis for computing costs, it would not necessarily be desirable to fund the program through the UI system; funding through JTPA Title 111 appropriations or through a separate fund might be more appropriate.)

⁸The U.S. Department of Labor's Employment and Training Administration issued a directive on implementation of this requirement (contained in Section 302 of JTPA) on June 29, 1983. Section 302 requires states to identify employment opportunities, and associated training opportunities, for groups of individuals eligible for Title 111 assistance. Acceptance for such training is deemed acceptance of training by the State under Federal laws relating to unemployment benefits. Section 3304 of the Federal Unemployment Tax Act of 1970 indicates that benefits to otherwise eligible individuals should not be denied if the individual is participating in training approved by the State.

⁹See, for example, H.R. 3700, the proposed Higher Education Amendments Act of 1985 as reported by the House Committee on Education and Labor on Nov. 20, 1985. In addition, proposals have been made to encourage workers and employers to establish individual training accounts (ITA) to cover training expenditures should the worker become unemployed. The ITA concept is discussed in ch. 6, and in the continuing education section of this chapter.

The number of people likely to make use of intensive training programs of this sort will fluctuate, depending on general economic conditions and reemployment prospects. However, the demand for training is not unlimited. Even in JTPA projects that emphasize training, generally only about 20 to 30 percent of the participants take classroom training, and, of these, most enroll in short-term courses. If 5 percent of all JTPA participants qualified for the extended income support, the cost of the program would be \$23.2 million, assuming (as does the Labor Department for planning purposes) that the Title III program serves 150,000 people nationwide.

Health Care and Displaced Workers in Training

Some displaced workers who would otherwise be good candidates for classroom training may feel it necessary to forgo training when jobs are available, so they can regain health insurance benefits for themselves and their families. Provision of health services to displaced workers, like extended income support, might encourage more displaced workers to take retraining courses.

The issue of medical and health services benefits for the unemployed (and for other people not covered by insurance plans) has been the subject of considerable legislative debate in recent years. Discussion of the issue as it relates to unemployed people in general is beyond the scope of this report.¹⁰ JTPA, in theory, already authorizes States to provide health care for displaced workers participating in Title 111 training projects. While specific information is not available on provision of health services to Title III participants, it is generally believed that few if any States offer it. JTPA generally places a 30-percent limit on the proportion of Federal funds that can be used for administration and “supportive services” (health care is just one of several “supportive services” permitted un-

der the act).¹¹ Because 15 percent of the States’ share of Federal funds may go to the costs of administration, the effective limit for supportive services (for funds subject to the limit) is 15 percent.¹² In fact, States may spend far less; so far, 6 to 7 percent of the Federal share of Title 111 spending has gone to supportive services. Given the limited information now available, Congress might wish to address the health services issue, as it relates to participation in training, as one subject of oversight on classroom skills training in JTPA. (See table 2-2, option 4c.)

Remedial Education and the Displaced Worker

Displaced workers with basic educational deficiencies (as in reading, writing, arithmetic, and oral communications) may be seriously hampered in their search for reemployment, and are often unable to participate in training or retraining programs. Up to 20 percent of participants tested in displaced worker projects have shown deficiencies in basic educational skills; some of these workers may require fairly intensive remedial education to correct the deficiencies. Other workers with less severe, yet still serious, basic skills deficiencies might benefit from shorter term courses.

Displaced worker projects can serve as a highly effective delivery system for adult basic education. However, the high promise of Title III programs as a vehicle for providing remedial education is not being met. While specific displaced worker projects often strongly emphasize remedial education, the findings from an OTA phone survey of State Title 111 program managers suggest that remedial education has not been given high priority at the State level. Only half the States responded to questions about the number of displaced workers receiving remedial education; of these, seven indicated that no Title III funds were

¹⁰For a discussion of proposals in Congress related to health insurance benefits for the unemployed in general, see Janet Pernice Lundy and Anne C. Stewart, “Health Insurance: Proposals in the 99th Congress,” Library of Congress, Congressional Research Service, Issue Brief IB84067.

¹¹The 30-percent limitation is stated in Section 307(a) of JTPA. Section 4(24) defines supportive services to include health care.

¹²Under Title III, only the formula-funded grants to States are subject to the 30 percent limit. About three-quarters of Title III grants are formula-funded, the rest are disbursed at the discretion of the Secretary of Labor. Altogether, the 30 percent limit applies to only one-half of the Federal and non-Federal funds available to a Title 111 program.

spent for remedial education. Even among the States that said they provided remedial education in Title III projects, the percentage of clients served by basic education was usually low. Of the 18 responding States in this category, participation levels among Title III clients ranged from 0.1 to 18 percent. Eleven of these States—or nearly two-thirds—provided remedial education services to less than 10 percent of Title III participants, and seven provided these services to less than 5 percent.

Thus, it appears that only a few States are providing remedial education to clients in Title III projects at a level that even approximates the probable need for services (using the 20 percent figure cited above as a rough indication of need). If Congress desires to place greater emphasis on remedial education in Title III programs, areas that merit attention include: 1) expanding JTPA's performance standards to include improvement in basic education skills as a goal of Title III projects, 2) directing States to excuse unemployed people receiving UI benefits from work search requirements while they are enrolled in intensive remedial education classes, and 3) earmarking a portion of JTPA funds for remedial education in Title III projects.

It is possible that UI requirements in some States make it difficult for displaced workers to take intensive full-time remedial education courses while receiving UI benefits. While JTPA (as noted above) directs States to excuse displaced workers from UI work search requirements if they are enrolled in eligible training opportunities conducted under Title III, displaced workers enrolled in full-time remedial education *classes* are not explicitly covered by the exemption. OTA's phone survey of State Title III program administrators indicated that several States do not consider remedial education a training opportunity (under the meaning given to it under Section 302 of JTPA) or as "approved training" by the State.¹³

¹³In addition to the provision in JTPA, Federal law governing the UI system also directs that otherwise eligible unemployed people can be excused from work-search requirements and still receive UI benefits, if they are participating in any State-approved training—not necessarily JTPA-funded training.

Some concern exists that JTPA's emphasis on successful placements and low costs may discourage projects from offering remedial education. The concern has been greatest in the case of Title II programs for economically disadvantaged people, but it may also be relevant to some Title III projects. For youth programs under JTPA Title 11A, performance measures include employment competencies recognized by the local PIC and completion of schooling, as well as placement in jobs. These measures are not included for adult workers, either disadvantaged or displaced.

How the UI work test or JTPA performance standards affect offerings of remedial education in displaced worker projects is uncertain. It is probable, however, that some workers who could benefit from remedial education are affected adversely. Congress could encourage more attention to remedial education if it explicitly stated that "training" under JTPA includes remedial education, and that improving basic skills in reading and mathematics is considered a positive outcome of training (see options 3b (i) and 3b (ii) in table 2-1).

Another measure to encourage delivery of remedial education as part of displaced worker projects would be to allow or to require a set-aside of a given percentage of Title III funds for this purpose (see option 3b (iii), table 2-1). There are several mandatory set-asides in Title III; for example, 8 percent of these funds must be allocated for continuing education agencies, including adult and vocational education. In the same way, a small portion of Title III funds might be allocated to State agencies that provide education in basic skills for adults. For example, States might be directed to spend at least 3 percent of their Title III funds for remedial education. This is much more than most States now spend on remedial education in Title III programs, although less than what is spent in the most ambitious State efforts. (i.e., about 5 percent).

One way to estimate the additional cost of emphasizing remedial education in displaced worker programs is to look at actual costs in some exemplary projects. The Ford/UAW project at the Milpitas, California, auto assembly

plant enrolled 770 workers in remedial education—39 percent of the 1,997 who signed up for services. The average extra cost per participant was \$245 (it was only \$130 per course, but many workers signed up for more than one course). In the Midland, Pennsylvania, project, which offers a range of remedial education services with excellent participation, the extra cost to the project is \$97 per participant. Assuming that 150,000 displaced workers were to participate per year in Title III projects, and 20 percent take advantage of remedial education, the cost, at \$200 per participant, would be \$6 million. This is a little under 3 percent of the Federal appropriations of \$223 million for Title III programs in fiscal year 1985.

JTPA Information, Reporting, and Monitoring Requirements (Issue Area 4, Table 2-2)

OTA found several areas where current information and reporting under JTPA Title III and other related programs may not adequately support congressional oversight of program activities, identification of budget priorities, or policy formulation. In addition, questions have been raised about the adequacy of Federal guidance and information to States. Four areas of particular concern are:

- Reporting on demand for services in displaced worker programs is inadequate and out-of-date. The Labor Department requires States to provide summary annual reports on JTPA programs, which include figures on numbers of participants and spending levels. These reports could be more helpful to Congress in making budget decisions if they were more timely.
- No reporting is required on the mix of services in displaced worker programs—that is, how many workers receive each service, including job search assistance, vocational skills training, on-the-job training, remedial education, and relocation assistance. Such information could be useful to Congress in judging the effectiveness of the Title III program.
- Reliable nationwide information on permanent layoffs and plant closings (the number occurring each year, the number

of workers affected, the geographical location of closings, and the types of industries) does not yet exist. JTPA requires the Secretary of Labor to collect this information and publish it annually, but the effort was not undertaken until Congress appropriated funds for it.

- Some States complain that the Labor Department has given them insufficient direction in implementing JTPA programs, and believe they must be extra cautious in such matters as determining eligibility, so as not to have spending disallowed in audits later. The problem may be temporary, since it will ultimately be “solved” in the audit process, but in the meantime delivery of services to displaced workers in some States may be less than optimal.

If Congress wishes to emphasize these reporting requirements under JTPA more strongly, or to strengthen the Federal role in guiding States in areas of uncertainty, it may choose among several means of doing so, including: 1) legislative guidance through JTPA oversight, to focus attention on congressional and State needs for timely information; and 2) earmarking appropriations for collection and publication of data.

Timely, adequate reports on participation in and spending for displaced worker programs could assist Congress in making appropriations decisions (see option 4a, table 2-2). The Labor Department requires reports from the States on their Title III activities only once a year, covering the period through the end of the program year, June 30, and due 45 days later. Not all reports are submitted in time; collection of data that are reasonably complete for most States may be delayed several more weeks. Congressional hearings on budget and appropriations for the following fiscal year begin in the spring; reports on spending and program activities that do not arrive until near or after October 1, when the new fiscal year begins, are of limited value. Even when the congressional schedule slips, and work proceeds on the new fiscal year’s appropriations after the fiscal year has begun, information that arrives so late in the session may not receive much analysis or attention.

Table 2-2.—Options to Improve Information, Reporting and Monitoring Under JTPA Title III

Issue area and options	Relationship to other options	Relationship to current policy	Estimated cost of option to Government
<i>Issue Area 4: Improving information, reporting, and monitoring</i>			
a) Legislative guidance to the Department of Labor requiring more frequent reports from the States on the number of participants and spending levels for JTPA Title III programs	Quarterly or semiannual reports on Title III programs would help Congress make budget decisions about Title III and conduct oversight of the programs	This option could be Implemented through a congressional directive to the Secretary of Labor to require recipients to submit quarterly or semiannual reports on Title III activities (Section 165 of JTPA already authorizes this.)	Not calculated but small' some additional project costs would be associated with more frequent report preparation, these data are now prepared annually
b) Legislative guidance to the Secretary of Labor requiring Title III grant recipients to report on the service mix provided in their projects at least on an annual basis	Information about demand for and provision of different services (e.g., skills training, basic or remedial education, relocation assistance, reemployment services), would help decisionmakers in Congress and the administration determine whether a full mix of services is provided and would also help in budget and appropriations processes	Like (a) above, this option also could be Implemented through Congressional guidance to the Secretary of Labor on implementation of section 165 of JTPA	Not calculated. Many Title III projects and some States already develop this information. In other cases, this option would require Title III recipients to compile additional information in their reports submitted under section 165 of JTPA, and this would add somewhat to the costs of JTPA administration
c) Legislative oversight on the extent of classroom skills training opportunities offered in Title III projects, including the question of whether greater emphasis on health care services would increase participation in intensive training	Because inadequate information exists about the mix of services provided in JTPA Title III projects, oversight process would be made more effective if combined with reporting requirements in option 4b	Classroom skills training is one of several services JTPA Title III projects are authorized to provide, and for some displaced workers is the best route back to a good job. Some concern exists that classroom training opportunities are given little emphasis in some Title III projects—to the detriment of some displaced workers who might benefit from such training. Also, some displaced workers who would otherwise benefit from intensive training may seek immediate reemployment when available in order to regain health care benefits for themselves and their families. Although JTPA Title III authorizes States to provide health care to Title III participants, it appears that few have done so	The direct costs of oversight would be small. However, classroom training is one of the most expensive JTPA services. To the extent that oversight resulted in greater emphasis in classroom training in JTPA projects, additional costs could be incurred. Additional costs could also be incurred if more States offered health care services to Title III participants, although a major increase in Federal costs would not occur unless the spending limit (generally 30%) on administrative and supportive services were lifted
d) Legislative directive (with earmarked funding) to the Secretary of Labor to continue to compile and report on permanent layoffs and plant closings, as required by section 462(e) of JTPA.	Better information about plant closing and large layoffs (including data on the number of closings and workers affected, location of facilities, and types of industries) could be helpful in determining JTPA Title III priorities. In addition, plant-closing information of this sort would be useful if a national program of pre-layoff assistance was adopted.	Section 462(e) of JTPA requires the Secretary of Labor to develop plant closing data, and to publish a report based on this data "as soon as practicable" after the end of the calendar year. Implementation of this provision did not begin until Congress made specific appropriations for the purpose in FY 84 and FY 85. While nationwide data are now being developed, annual updating of the data and reporting may require specific appropriations in the future. The U.S. General Accounting Office is currently conducting a study of large plant closings and mass layoffs on a one-time basis, with results expected in 1986	Initial appropriations for section 462(e) were \$1 million in FY 84 for an 8-State pilot project, and \$5 million for FY 85 for expansion of the data compilation process to the remaining 42 States (The data on plant closings are derived from unemployment insurance data, not actual records on plant closings or layoffs.) Costs for the data would probably be less in the future
e) Legislative directive to the Secretary of Labor to provide more active guidance to State Title III programs to clarify areas where uncertainties exist (e.g., the question of who is eligible for Title III projects).	This option, while continuing the policy under JTPA of giving the States flexibility in implementing their programs, would clarify concerns of some program managers that they have been given too little guidance about what JTPA permits.	The Department of Labor is authorized by JTPA to provide such guidance.	Not calculated, but direct costs would be small

SOURCE: Office of Technology Assessment

The Title III reports that States are required to file are brief and simple. Submitting them quarterly, or at least semiannually, probably would not impose an undue burden. These timely reports could be more useful to Congress than annual submissions. Such reports would have to be interpreted carefully, however, because spending rates for displaced worker programs are not necessarily even, for several reasons (one is that plant closings are sporadic, not predictable, and many States set aside a portion of their Title III funds for contingencies). It might be useful to add information on obligations, as well as on spending, of Title III funds. A telephone survey done in October 1985 by the National Governors' Association showed that, although there was a large carryover of unspent funds at the end of the program year, June 1985, most States had fully obligated their Title III funds by that time. Analysis of figures on obligation of these funds by States, as well as on spending, could be useful to Congress in its budget decisions.

Current information on the operation of the Title III program is especially desirable because demands for services appear to fluctuate with changing economic conditions. Displaced workers tend to seek services less, and probably opt for expensive classroom training less, in good times than in bad. Demands for services may also rise when services are delivered more effectively—for example by rapid-response teams that establish pre-layoff services in plants undergoing closure or mass layoffs. Congress may wish to adjust funding, depending on the uptake of services, the choice of services, and therefore the rate of spending and obligation of funds.

Although JTPA leaves decisions on service mixes to the States (and the States may delegate these decisions to project directors), Congress may wish to be informed on how many workers are getting vocational skills training, on-the-job training, remedial education, relocation assistance, and so on. Without this information, it is difficult to determine the full benefits to workers from this federally funded program, or to identify the need for possible changes in direction. One branch of the Labor

Department's Employment and Training Administration does currently collect data, on a sample basis, on participants, service mix, and outcomes in Title III projects. However, the information from these sample surveys is neither detailed enough nor certain enough to give Congress an adequate picture of the mix of services being offered in displaced worker projects. Reports, made at least annually, on how many workers receive specific services, on the outcomes (e.g., placement rates, wages) of various types of services, and how much money the program is devoting to each service could help to fill the information gap (see option 4b, table z-2).

Another information gap that may be of concern to Congress relates to plant closings. Directors of Title III programs in a number of States believe that plant closings have been frequent throughout the economic recovery, and want to assure early delivery of services to the affected workers. Despite JTPA's requirement of annual reports on plant closings, no nationwide compilation is yet available. Congress appropriated \$1 million in fiscal year 1984 for a pilot study of plant closings, based on unemployment insurance records, in eight States; in 1985 another \$5 million was provided for a full 50-State study. The Administration proposed rescission of the latter sum, on the grounds that economic recovery made a plant-closing study unnecessary. Congress did not approve the rescission, and the full study is reportedly going forward. Results of the study maybe useful to Congress in considering whether further special attention to plant closings is warranted (e.g., as in the proposals to require or encourage early warning of plant closures and mass layoffs). Annual studies, should Congress wish to continue them, may depend on the provision of specific funding directives in the appropriations process (option 4d, table 2-2).

JTPA assigns the Federal Government a minor role in the direction of training and employment programs. Congress may, however, wish to consider whether the State programs would operate more effectively if Federal guidance were more specific on items likely to be reviewed in audits (option 4e, table 2-2). Exam-

pies are definitions of eligibility for displaced worker projects, and acceptability of various kinds of expenditures as part of the State match for Title III grants. Once a number of audits has been completed, such questions may be resolved. But meanwhile, some State program managers may be imposing unnecessary restrictions for fear of an audit; some JTPA project directors say that service to clients is hampered because of State-imposed restrictions and red tape. State JTPA programs might benefit from clearer guidance beforehand.

A positive contribution the Federal Government can make to displaced worker programs is in information sharing and evaluation of the performance of programs. The Department of Labor's ETA supports organizations such as the National Governors' Association (NGA) and the National Alliance of Business (NAB) in bringing State JTPA officials together for information sharing on JTPA programs. Federal support for all information sharing activities under JTPA cost about \$3 million per year, of which only part is related to Title III activities. A useful addition to these activities might be to create a continuously operating information clearing-house (either within the Labor Department itself or through the NGA or NAB) which could provide States with up-to-date information on how States are handling common problems.

ETA also undertakes several kinds of evaluation efforts which can be useful in monitoring training programs, and in assessing the possible need for changes. Among these activities is support for contractor studies of individual projects, including a report on model projects. A long-term evaluation of the impact of JTPA programs, comparing participants with similar nonparticipants, is planned. Estimated funding for ETA evaluations was \$8.6 million in fiscal year 1985; the figure includes evaluations of the entire \$3.8 billion JTPA program, not just Title III. The Administration has requested \$11.3 million for ETA evaluation activities in fiscal year 1986.

Trade Adjustment Assistance

TAA, established in 1962 and liberalized in the Trade Act of 1974, was intended to provide

compensation and adjustment services to workers who lost their jobs from the consequences of foreign competition. Though much reduced from its height in 1980, when spending reached \$1.6 billion and nearly 600,000 workers were certified as eligible for services, TAA was still a fairly substantial program in 1985. (Spending for the program declined sharply after Congress redefined and limited TAA income support payments in the Omnibus Budget Reconciliation Act of 1981.) Assistance to workers was funded at about \$71 million in fiscal year 1985, including a \$26 million appropriation for training and relocation, and estimated outlays of \$45 million for income support. A parallel program of financial and technical assistance to firms losing business because of foreign competition was funded at \$25 million, plus loan guarantee authority of \$15 million. As has been noted, TAA's authorization technically lapsed in December 1985. However, some TAA services apparently can be provided under a continuing resolution signed into law by President Reagan on December 19, 1985 (Public Law 99-190). This law continues TAA funding for retraining, job search and relocation assistance, but not income support, through the end of fiscal year 1986.¹⁴

Congressional interest in the program remains high, and additional consideration of TAA in 1986 is likely. The conference committee report on H.R. 3128, the budget reconciliation bill that was still pending when Congress adjourned at the end of 1985, proposes to continue TAA and to fund the program through a small uniform duty on imports.¹⁵

In addition, at least 13 bills to extend or modify TAA were proposed in the first session of the 99th Congress. Some of these bills would reauthorize current programs with little modification. Others would reauthorize only the

¹⁴This appropriation is provided in Section 101(j) of Public Law 99-190 which appropriates such amounts as may be necessary for continuing activities under Sections 236, 237 and 238 of the Trade Act of 1974 through the end of fiscal year 1986 under the terms of fiscal year 1985 appropriation acts. Activities conducted under the three sections are training, job search allowances, and relocation assistance, but not income support.

¹⁵The Conference Committee provisions on TAA can be found in Title XIII of H.R. 3128, the proposed Consolidated Omnibus Budget Reconciliation Act of 1985, as contained in House Report 99-453, Dec. 19, 1985.

worker assistance component of TAA, but not the firm assistance program. Still others would modify the current program substantially, or propose quite different programs.

The principal argument against continuing TAA is that it is difficult, and probably inequitable, to try to distinguish among displaced workers by cause of displacement, and to single out one group for special treatment. The Administration, arguing that Congress should allow the program to die, held that TAA is unnecessary and duplicative, because JTPA programs offer adequate services to all displaced workers, whatever the cause of their displacement; and that the unemployment insurance system provides sufficient income support to all unemployed workers. On the other hand, it is argued that TAA assists workers who are paying the price for a national policy (removal of trade barriers) that benefits society as a whole. Also, the program may ease protectionist sentiment among workers in trade-affected industries.

For eligible workers (those certified as having been displaced due to increased imports of directly competitive products) TAA has provided some significant extra benefits beyond those offered under JTPA Title III. TAA income support payments (set at the level of unemployment insurance benefits) has lasted as long as 18 months for workers in training, and relocation assistance has been more generous than under JTPA. Thus, TAA support has enabled some workers to complete longer term training than they otherwise could have afforded, and has encouraged some relocation out of depressed areas. In fiscal year 1984, 35,000 workers received income support payments, 6,538 entered TAA-assisted training, and 3,120 got relocation assistance. (The amount of overlap in these figures is not known.) If Congress chooses not to reinstate the program, some TAA-eligible workers can be served in JTPA Title III projects, although not necessarily at the same level of service.

ASSISTANCE TO DISPLACED HOMEMAKERS

In the Carl D. Perkins Vocational Education Act of 1984, Congress demonstrated a strong interest in providing Federal support for programs serving displaced homemakers. The act authorized spending of up to \$84 million per year on services specifically designated for single parents and homemakers, including displaced homemakers. For fiscal years 1985 and 1986, Congress appropriated \$63 million for Vocational Education (Voc Ed) grants serving this targeted group.

Of the \$63 million in Voc Ed grants set aside for single parents and homemakers, an undetermined but probably quite large share will go to programs serving displaced homemakers. Records on past Federal spending targeted to displaced homemakers are incomplete, but CETA¹⁶ and Voc Ed funds combined probably never exceeded \$8 to \$10 million per year. (See chapter 10 for details.) Even so, the increased

funding is a comparatively small sum for a training, education, and employment program open to a population of millions, as the following comparisons with CETA and JTPA indicate.

No estimate has been made of how many single parents and homemakers there are, but displaced homemakers alone probably number over 2 to 4 million (depending on how the term is defined). Supposing that all these people were to participate in the new Voc Ed program, and that two-thirds of the available funds were spent on displaced homemakers, only \$10 to \$21 per person would be available. The comparable figure under CETA in fiscal year 1980, when approximately \$4 billion was spent for general employment and training programs open to 16 million disadvantaged workers, was about \$250 per eligible person. In fiscal year 1985, when \$223 million was appropriated for the JTPA Title III program, and the eligible population of displaced workers was probably

¹⁶The Comprehensive Employment and Training Act.

about 3 million, the comparable figure was about \$75 per person. These figures are given only for the sake of comparing overall funding levels relative to the size of the targeted populations. They are not intended to suggest that 100-percent participation by any group is realistic. Moreover, participation rates and the demand for services may vary substantially among the groups.

Vocational education programs under the Perkins Act were just gearing up in 1985; it was still too early to identify all the major policy issues that might arise under the new law. One issue already under debate, however, is whether and how to amplify the extremely sparse data about displaced homemakers—how many there are, their characteristics (e. g., age, family size, income, cause of displacement), the level and kinds of services provided to them, and program outcomes (e.g., training completed, placement in jobs). Another issue likely to come up is whether the State administrators in charge of the women's programs under the Voc Ed act are in fact able to exercise the authority the law grants them, and are actually dispensing the funds that the law sets aside for these programs.

Another major Federal program that serves some displaced homemakers is JTPA. While the services provided under JTPA are similar to those that can be offered with Voc Ed funds, the emphasis is different: JTPA stresses placement in jobs more heavily, while the Voc Ed program emphasizes education and training. Also, as discussed above, funding for displaced homemaker programs under the Perkins Act, though much increased from previous levels, is still comparatively small. Both the JTPA and Voc Ed programs are important sources of funding for displaced homemaker projects.

OTA's review of service to displaced homemakers under JTPA indicates that it is at a modest level so far. In 1984, 57 of 355 displaced homemaker projects responding to a survey reported that they had JTPA funding, and about 10 percent of the projects' funding came from this source. Issues of interest to Congress in looking at the relation between JTPA and services to displaced homemakers might include: 1) eligibility of displaced homemakers, under

both Title 11A and Title III; and 2) relations between displaced homemaker projects and the JTPA system (i.e., State JTPA program managers, local directors of Service Delivery Areas, and local PICs).

An issue relevant to both the Voc Ed and JTPA programs is the special barriers faced by displaced homemakers who are interested in training or education. Unlike the majority of workers displaced from paid jobs, most displaced homemakers have no unemployment insurance for income support during even a brief training course. Furthermore, few have income from spouses or other family members to rely on. Although supportive services and training allowances for trainees in acute economic need are authorized in both the Perkins Act and JTPA, they have not been much used in either program. Competition for student financial aid, another possible source of income support, is keen; and the aid is often more readily available to young people going directly into college from high school than to displaced adults entering or reentering training in preparation for a job.

The Perkins Vocational Education Act and Displaced Homemakers

Information

Current, consistent national information on displaced homemakers and the programs that serve them is not available. States could be asked to provide such information under the Perkins Act, but the Administration has not done so. Thus, if Congress wishes to see the development of such data, it may have to consider ways of mandating it, such as requiring routine reporting by the States or instructing the U.S. Department of Education to undertake studies of the programs serving single parents and homemakers, including displaced homemakers.

Little systematic information has ever been collected about displaced homemakers or the projects created to serve them. Nationwide estimates of the number of displaced homemakers vary widely according to the definition selected (e.g., whether women under 35 years old are

included or excluded). Many State vocational education agencies do not have reliable data on how many displaced homemakers reside in their State. Even less information is available about single parents and homemakers (the group entitled to set-aside funding under the Perkins Act). Systematic evaluations of the effects of displaced homemaker programs have not been conducted, even though some programs are now more than 10 years old; there are scarcely any reports even of outcomes (e.g., how many participants found jobs and at what wages, how many entered training, how many completed training, or how many found jobs related or unrelated to training).

The Perkins Act does not explicitly require any routine reporting from States on numbers and characteristics of single parents and homemakers (including displaced homemakers) receiving assistance from Federal Voc Ed grants, of services provided, or of outcomes. The U.S. Department of Education is not requiring such reports. Department officials contacted by OTA say that the reports are unnecessary, and would be inaccurate and intrusive if required. In general, the Administration opposes Federal requirements for reporting of data not considered essential to an agency's mission or demanded by law.

A number of State administrators of Voc Ed women's programs (the State Sex Equity Coordinators) consider it essential to give Congress a factual basis for deciding whether the needs of single parents and homemakers are being met in accordance with the law, whether the programs serving them are effective, and what spending levels are appropriate. Some State officials are taking the lead in developing a data collection system that could be used to build a consistent set of statistics. A number of States may participate in the system, but it is not likely that all will.

Another alternative would be to require a special study on the characteristics of services provided to single parents and homemakers. The Perkins Act directs the U.S. Secretary of Education to conduct applied research on aspects of vocational education emphasized in the act; one of these is effective methods for

providing quality vocational education to target groups, including single parents and homemakers. In mid-1985, the Department had no plans underway for an applied research study on the topic of single parents and homemakers.

The Perkins Act also unequivocally requires a national assessment of vocational education assisted under the law, through independent studies and analysis and in consultation with Congress, to be delivered by January 1, 1989 (9 months before the Perkins Act is due to expire).¹⁷ A description and evaluation of the vocational education services delivered to target groups, including single parents and homemakers, must be included in the assessment.

Intent of the Set-aside

The Perkins Act places substantial emphasis on set-asides, or the targeting of portions of the grants to States' special populations. These set-asides amount to 57 percent of the grants and, for some groups, are entirely new. The set-asides, especially the 8.5 percent for single parents and homemakers, were adopted over the strong opposition of much of the vocational education establishment. Under the old Voc Ed act, displaced homemakers were named as a target group, but no specific amounts were designated for services to them. As programs under the Perkins Act get underway, Congress may wish to exercise a considerable degree of oversight on whether the set-aside provisions are being implemented in the way the law prescribes.

A potential topic for oversight is whether the Sex Equity Coordinators are able to wield the authority the law gives them to administer the single parents and homemakers programs, and whether the set-aside funds are reaching their intended beneficiaries. Suppose, for example, that a State allocates Federal grant funds to vocational education in secondary and post-secondary schools by the usual formulas, with

¹⁷The act specifies that the National Institute of Education in the U.S. Department of Education shall carry out the study. However, the Institute was not re-authorized in 1985, and the Department intends to let it expire. The Department proposes to carry out the mandated study in its Office of Policy, Budget, and Evaluation.

an extra effort to enroll single parents or homemakers in an attempt to meet the 8.5 percent “quota,” but with no attempt to set up special programs for the group. Congress may wish to assure itself that States are using the specified parts of their Federal grants to “meet the special needs” of single parents and homemakers and other targeted groups,

A different but related subject for oversight is whether the States are able to use this large infusion of new funds effectively. The eligible population, though uncertain in numbers, is certainly very large in relation to the funds. But are those eligible aware of the programs? Are they seeking services? Is the system able to absorb the new funds efficiently and provide services that are genuinely helpful and in demand? These are some of the questions that Congress might want to pursue.

The Job Training Partnership Act and Displaced Homemakers

Eligibility

Although Congress did not define displaced homemakers as a principal target group for JTPA programs, they are specifically mentioned in the law as one of the groups facing employment barriers and therefore eligible for some services. Because of the various eligibility criteria in the law, however, it can be difficult to use JTPA funds in projects designed to serve the specific needs of displaced homemakers.

Large numbers of displaced homemakers are poor enough to meet JTPA’s definition of disadvantaged, and therefore would be eligible for service in most Title 11A projects. The problem is that many displaced homemakers, because of their lack of confidence and experience in the job market and their sudden loss of personal and financial support, do better in projects designed to meet their needs specifically than in larger employment and training projects serving a variety of clients.

In addition, if employment and training projects accept only women who meet the income criteria for Title 11A, they exclude many others

who need and could benefit from their services. Some displaced homemakers exceed the income limits because their losses of income were recent, and their incomes before they became displaced were too high. Others may be better off, but still need the counseling, assessment, and job readiness training that a displaced homemaker project can provide. JTPA does provide for Title 11A services to certain groups, including displaced homemakers, who exceed the income limits; roughly 10 percent of funds available to Service Delivery Areas are set aside for this purpose. According to early reports, however, most States are not using the 10-percent-window money to provide services to these groups.

A few States are serving displaced homemakers under Title III, which has no income limitations, JTPA gives States a great deal of latitude in defining eligible dislocated workers, and some consider displaced homemakers to fit under the category of long-term unemployed workers who are not likely to find reemployment in the same or similar occupations.

Relations With the JTPA System

Altogether, it is hard for many projects specializing in serving displaced homemakers to apply for and get JTPA funds. The biggest difficulties reported by project directors, in addition to the tangle of determining eligibility, are: 1) that project staff lack information and are outside the JTPA system, and 2) that PICs are not interested in funding special programs for special populations. The “outsider” problem may well disappear over time, but the disinclination of PICs to fund projects for special groups could pose a continuing difficulty for displaced homemaker projects, since most of the projects are founded on the idea that their clients need a special set of services.

The eligibility and special population problems might usefully be considered together. If projects serving only displaced *homemakers* are able to get JTPA Title 11A funding, and if States allow services to 10 percent of the clients of these projects without regard to their income, then many of the barriers that displaced

homemakers face in taking advantage of JTPA services would be lowered. This might be an appropriate subject for legislative guidance through JTPA oversight.

Alternatively, Congress might wish to encourage or direct States to serve displaced homemakers projects funded under Title III. This would simplify the eligibility problem, since there are no income limits in Title III. A number of States have expressed interest in serving displaced homemakers under Title III, and some have sought information from the States that are already doing so, such as Florida, Pennsylvania, and New York. On the other hand, if more effective delivery of Title III services is developed (e. g., by establishing a service such as Canada's IAS, discussed earlier in this chapter) participation of mainstream displaced workers might rise markedly. Quite possibly, funding for the Title III program might have to be increased if another large group (2 to 4 million displaced homemakers) were unequivocally made eligible.

Income Support for Displaced Homemakers in Vocational Training or Education Programs

The Vocational Education Act amendments of 1978 (now superseded by the Perkins Act) mentioned displaced homemakers specifically as a group eligible for income support during training, in cases of acute need, but anecdotal reports indicate that it was seldom provided. The Perkins Act does not mention displaced homemakers in connection with income support, though there is a general provision for stipends in cases of acute economic need which cannot be met under work-study programs. The Perkins Act does specifically provide for supportive services, including day care and transportation costs for single parents and homemakers in training, and for scheduling and organizing training programs to make them more accessible to single parents and homemakers.

Under JTPA Title 11A, 30 percent of spending may go for a combination of administrative costs and costs of supportive services and needs-based income payments. There is a 15-percent limit on administrative costs, so that

at least 15 percent is theoretically available for supportive services and income payments. The limit can be waived under certain circumstances, such as a high local unemployment rate. Under Title III, there is a roughly similar but less stringent limit on costs of supportive services, wages, allowances, stipends, and administration; the limit applies to no more than half of the combined Federal and non-Federal funds available to a Title III program. In the first years JTPA programs were operating, substantially less than the limit was spent for supportive services and income payments; 10 to 11 percent of Title 11A funds and 6 to 7 percent of Title III funds were spent for these purposes. It is not known how much, if any, of what was spent went to displaced homemakers.

Should Congress wish to encourage the provision of income support to displaced homemakers in training, Voc Ed grants and JTPA programs could be used to deliver this service. The UI system, which has sometimes been proposed as both the funding source and delivery system for extended income support during training for mainstream displaced workers, is not available to most displaced homemakers. Legislative guidance, through oversight hearings, is one way Congress might encourage or direct greater emphasis on income support for displaced homemakers in the Voc Ed and JTPA programs. However, because of the dearth of data about the numbers of displaced homemakers demanding services, and how many are interested in training, there is no solid information base for estimating participation and the costs of increased income support.

Assuming income support was provided to displaced homemakers in training at the level of average UI payments (\$119 per week in 1984), the cost would be about \$3,100 per person for 26 weeks, or \$6,200 for a year. Program costs might be estimated at \$31 to \$62 million for every 10,000 people who took advantage of the program. Such costs are high in relation to present levels of funding; the Voc Ed grants set aside for single parents and homemakers were funded at \$63 million for fiscal year 1985. Assuming 15 percent is the practical limit for

supportive services and income payments under JTPA, about \$33 million was available to displaced workers for these purposes under Title III in fiscal year 1985, and approximately \$280 million to disadvantaged workers under Title 11A.

Considering the lack of experience with an income support program for displaced homemakers in training, its possible high cost in relation to present sources of funding, and the scarcity of information about displaced homemaker programs, a full-scale national program may be premature. An alternative might be for Congress to require the Department of Education to develop improved information on existing displaced homemaker programs supported by Voc Ed grants, including numbers of clients and services provided. At the same time, Congress might wish to consider special funding for a pilot program, offering income support to displaced homemakers enrolled in training courses needed for employment. Evaluation of the pilot project could help in identifying likely participation rates and costs for future projects.

Options for Assistance to Displaced Homemakers (Issue Area 5, Table 2-3)

OTA's assessment of experience so far with Federal programs offering assistance to displaced homemakers identifies several problems that have already arisen and others that may arise in bringing reemployment and retraining services to this group. If Congress wishes to encourage greater delivery of services to displaced homemakers, it might consider the following actions:

- Encourage collection of nationwide data on single parents and homemakers, including displaced homemakers, served under the Carl D. Perkins Vocational Education Act. One option would be congressional direction to the Department of Education to collect data from States through routine

reports, or to undertake a special study. This might be done in one of several ways: through legislative guidance in oversight hearings, by direct communication with the Department of Education, or through the appropriations process (option 5a (i), table 2-3).

- Assure that State Sex Equity Coordinators who are in charge of Voc Ed women's programs have the authority to establish the special programs for single parents and homemakers that are called for in the law, and that the set-asides in Federal funds which the law provides for this group are reaching the intended beneficiaries in a way that "meets their special needs" (option 5a (ii), table 2-3).
- Clarify that projects serving only displaced homemakers may be funded under JTPA 11A, and assure that States are allowing the use of 10-percent-window money to serve groups that face special barriers to employment (including displaced homemakers), without regard to income (option 5b, table 2-3).
- Consider taking action that would either clarify to States that they may consider displaced homemakers eligible for services in JTPA Title III programs, or would direct them to do so. Clarification might be accomplished through legislative guidance in oversight hearings. A direction to States to consider displaced homemakers eligible for Title III services would probably require a change in the law.
- Consider providing income support to displaced homemakers in job training and education programs. One option would be to first require better information on existing displaced homemaker programs, including participation rates and types of services provided. While this information is developed, Congress might also wish to consider funding a pilot project providing income support to displaced homemakers undergoing vocational training needed for employment.

Table 2-3.—Policy Issues for Displaced Homemakers

Issue area and options	Relationship to other options	Relationship to current policy	Estimated cost of option to Government
<i>Issue Area 5: Improving delivery of assistance to displaced homemakers</i>			
a) Options related to the Carl D. Perkins Vocational Education Act:			
i) direct the Department of Education to collect data from the States on single parents and homemakers including the number of displaced homemakers and the extent of services provided them under the Carl D. Perkins Vocational Education Act of 1984; and	Option could be Implemented independently or in conjunction with other aspects of the Perkins Act that relate to development of information about adults in vocational education Option also could be implemented in conjunction with (ii) below.	The Perkins Act targets funds for provision of vocational education opportunities for single parents and homemakers, It also authorizes (but does not require) the Department of Education to develop data in this area on an annual basis. The Perkins Act specifically requires an independent evaluation of services provided to targeted groups to be completed in 1989.	Costs of requiring the data would add somewhat to State administrative expenses under the vocational education program.
ii) conduct oversight, with legislative directives as needed, to assure that State program sex equity coordinators have the authority to establish special programs for single parents and homemakers as called for in the law, and that set-asides established by the law are reaching the intended beneficiaries,	Annual reporting of information on single parents and homemakers (option (i) above) could be useful in implementing this option.	The Perkins Act establishes a set-aside for single parents and homemaker programs and gives sex equity coordinators authority to administer the programs. This is a substantial change from the prior program, which did not contain set-asides for targeted groups. Because the set-aside approach is new, some States may find it difficult to comply.	Not estimated, but small,
b) Options related to JTPA:			
i) provide legislative guidance to clarify that projects serving only displaced homemakers can be funded under JTPA Title IIA; and	Could be implemented through option 4e, pertaining to the Issue of overall guidance to States under JTPA,	JTPA, while not targeting displaced homemakers as a principal group for services under the law, does identify displaced homemakers as a group eligible for some services under the Title IIA due to the employment barriers they face,	To the extent that Congress encourages States to provide greater services for displaced homemakers under Title II and Title III of JTPA, additional costs under JTPA could be recurred.
ii) under JTPA, provide legislative guidance to clarify that displaced homemakers can be served under Title III, or direct the States to serve displaced homemakers under Title III,	Legislative guidance could be implemented under option 4e, pertaining to overall guidance to States under JTPA. A directive to the States requiring service to displaced homemakers under Title III probably would require a change in the law.	JTPA does not explicitly identify displaced homemakers as a group to be served under Title III, but several States are doing so, considering them as long-term unemployed.	To the extent that Congress encourages States to provide greater services for displaced homemakers under Title III of JTPA, additional costs could be Incurred,
c) Consider providing income support to displaced homemakers in training courses needed for employment, based on information from:			
i) studies required from the Department of Education on existing displaced homemaker programs, including number of participants and services provided; and	Option (I) could be Implemented in conjunction with option 5a(i), relating to collection of data on displaced homemakers,	Both the Perkins Act and JTPA provide for limited income support to trainees in cases of acute economic need, Little income support is being provided under either law.	Costs of income support to displaced homemakers in job-related training could be very substantial, depending on participation rates and level of allowances. Allowances at the level of average UI benefits in 1984 (\$119 per week) would cost \$3,100 to \$6,200 per participant for 26 weeks to 1 year. Program cost would be about \$31 to \$62 million for every 10,000 participants,
ii) a pilot project, funded by Congress, providing income support for displaced homemakers in training courses in a few selected projects, furnishing information on participation rates and costs			

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LABOR MARKET INFORMATION AND OCCUPATIONAL RESEARCH NEEDS

Local Labor Market Information (Issue Area 6, Table 2-4)

Whether displaced workers opt for retraining or for immediate job searches, they can benefit from detailed, up-to-date information on the kinds of jobs available in the local labor market. The same is true of projects that offer reemployment and retraining assistance to displaced workers. As a rule, only a small portion of the available jobs in a local labor market are listed with ES. In many States the information provided to displaced worker projects is neither current enough nor detailed enough to give an adequate picture of what occupations are in demand in local labor markets. Some managers of displaced worker programs are not aware, moreover, of the information that does exist, or of how best to use it.

If Congress wishes to place more emphasis on the provision of detailed local labor market information, several options are available, including: 1) legislative guidance through JTPA oversight to focus attention on providing better information at the local level, and on the more informed use of existing data; and 2) appropriation of funds for the specific purpose of improving local labor market information (option 6a, table 2-4).

JTPA calls on the States to design comprehensive, cost-effective systems of labor market information, for the State and areas within the State, that answer the needs of employment and training projects. State agencies, under the technical guidance of the U.S. Department of Labor's Bureau of Labor Statistics (BLS), collect a great deal of information on local unemployment rates, on levels of employment and earnings by industry, and on occupations within industries, much of which is funneled into national employment estimates and occupational forecasts. Some (not all) States collect additional data to show more detail on the occupational patterns of local industries. In these States, ES analysts are able to put together various sets of information from the local to the national level, and thus provide a

rough picture of growing, static, and declining occupations within the State; in some cases, the ES analysts develop estimates for local areas. The same kind of data is the basis for State and local occupational projections. Principal users of local labor market information include State vocational education planners, as well as managers of employment and training programs.

Some States (possibly 20) are able to provide reasonably current, detailed information on occupations in demand in at least some of their local labor markets. The data that most States collect in cooperation with BLS may be adequate for at least a fair approximation, but many States lack the funds and the expert staff to do the necessary analysis. With the sharp drop in Federal funding and staffing levels in the ES system since fiscal year 1982, the ES research and analytic staffs in many States have been weakened,

Although JTPA authorizes Federal support for development of State and sub-State labor market information, the Administration approach is to keep Federal spending for this purpose to a minimum. In general, for labor market information needed at the national level (such as the monthly estimates of employment and earnings) Federal spending has risen in the past few years.¹⁸ The BLS plans, however, to reduce funding and detailed coverage in the statistical program that produces estimates of occupational employment by industry; this is the program which a number of States use for developing local estimates of occupations in demand. Moreover, Federal assistance for programs to develop local planning data is slated for cuts. Since 1980, Federal funding for these small programs has stayed flat in current dol-

¹⁸This is not true of other statistical programs conducted by the Bureau of Labor Statistics. Aside from labor market information programs, which are funded mainly from the Unemployment Trust Fund, and a major one-time revision of the Consumer Price Index, spending for BLS statistical programs was cut sharply in constant dollars in fiscal years 1981 and 1982, then rose to about the level of fiscal year 1980. The Administration has proposed a 10 percent reduction (constant 1980 dollars) for these programs for fiscal year 1986.

Table 2-4.—issues in Labor Market Information and Occupational Research

Issue area and options	Relationship to other options	Relationship to current policy	Estimated cost of option to Government
<i>Issue Area 6: Improving labor market and occupational information</i>			
a) Legislative guidance-through JTPA oversight-to focus attention on the need for better labor market information at the local level, and provision of additional funds for improving local labor market information.	Better information about local labor markets could help JTPA project managers, vocational education officials, career counselors, and others make more informed judgments about education, training, and reemployment options that make sense locally.	JTPA authorizes Federal support for development of State and substate labor market information. Federal funding for programs to develop local planning data has remained constant for several years. For FY 86, the Administration has proposed reducing Federal funds for local planning data from \$7.3 to \$4.3 million. This would reduce the amount of ES staff available to develop and analyze local data.	An estimated \$8 to \$9 million would be enough to maintain a minimum level of ES staff needed to develop and analyze local labor market data. This compares to \$7.3 million for local labor market data in the FY 85 budget, and the \$4.3 million proposed by the Administration for FY 86.
b) Provide adequate funds for obtaining and updating qualitative information about jobs.	Qualitative information about jobs is used by educators, career counselors, employment officials, and people making career decisions and therefore is useful in implementing reemployment and education options.	Section 462 of JTPA emphasizes the need for current qualitative information about jobs. For example, funding for the Dictionary of Occupational Titles has declined over the last decade from about \$2.6 to \$1.8 million in fiscal year 1985.	Restoring prior funding levels would entail modest additional expenditures,
<i>Issue Area 7: Conducting research on the effects of technology on jobs</i>			
a) Direct Federal agencies to evaluate the employment effects of major federally supported technology development efforts.	The evaluation process could provide an early warning system about future technological changes which could affect employment, education, and training programs.	Evaluation of employment impacts of federally supported research is seldom undertaken.	Costs of conducting such evaluations have not been estimated, but would be a minor component of overall Federal R&D expenditures.
b) Direct the National Science Foundation to fund one or more centers for engineering research to focus on alternative work organization and job design in development of manufacturing technology.	Option could lead to increased attention on the part of engineers and engineering students to the potential for better matching of technology development efforts with human capital.	Currently, the National Science Foundation's program for Engineering Research Centers has led to the funding of six centers affiliated with universities. All of the proposals and centers in the area of manufacturing have been oriented toward achieving advanced levels of automation in factories. This option would strike a more balanced approach in the area of manufacturing.	If one center were funded at the level of existing centers, this option would cost \$3 million over a 5-year period, or \$600,000 per year for each center that is established.

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lars, declining in real terms about 30 percent. For fiscal year 1986, the Administration budget proposes a reduction in local planning data funds of about 40 percent—from about \$7.3 to \$4.3 million. If the cut were restored and adjustments made for inflation, Federal assistance would be in the range of \$9 to \$10 million. This increase over the requested level could be used to restore and maintain a minimum level of ES staff needed to develop and analyze local labor market data.

Some JTPA projects deal with the lack of information on occupations in demand by commissioning surveys of local employers to determine recent hiring patterns. The results can be useful depending on the sophistication of the surveys. Many projects use performance-based contracts, which put the burden of finding out what occupations and skills are in demand on training institutions; the trainers are not paid in full until an agreed-on percentage of trainees are placed in jobs related to their training.

An idea for improving information about local occupational demand is under development in Colorado, with the support of several other States. Employers in most States are already required to file quarterly reports for unemployment insurance purposes, showing the numbers of employees at the beginning and end of the period and also identifying the employer's detailed industrial classification. When these reports are aggregated, they can show hiring flows by local area and industry, but not by occupation. In the pilot project being planned by Colorado, the employer will be asked to add occupational titles for all employees. Thus, if the projects succeed, the raw data for showing quarterly hiring flows by industry, locality, and occupation will be available.

Some technical and financial difficulties may be involved in this kind of project. Employers may find it very troublesome to assign titles to their workers' occupations, and this problem could delay submission of UI reports and taxes; it might also interfere with employers' willingness to cooperate in surveys sponsored by BLS for national purposes. Costs to the States of aggregating and analyzing the data could be high.

However, many analysts and managers in the employment training field are interested in a trial of the idea, because the possible benefits are substantial.

Improving Long-Range Projections of Future Job Opportunities

As a part of its national labor market information programs, the Federal Government develops long-term occupational projections. The projections are used in a number of practical and theoretical ways. For example, vocational counselors and students may use them as an aid in career planning. Educators may use them in planning courses. Job counselors in employment and training projects refer to them in deciding in the kinds of training to offer. Analysts sometimes use them to assess the occupational effects of technological change, and associated long-range shifts in education, training, and employment priorities. A recurring question in employment and training policy has been whether there would be much practical benefit in launching a substantial effort to improve the occupational forecasting system. This question is examined below in terms of both quantitative projections and qualitative occupational information developed by the Labor Department.

Quantitative Forecasting

BLS periodically prepares and updates long-term quantitative forecasts of occupations by industry, using a series of models. In the process, BLS staff make a number of assumptions about future economic activities, technology, and trade. These assumptions are generally based on long-term trends of the past, tempered by expert judgment. However, expert judgment can miss developments that affect the forecasts. For example, few experts predicted the energy crises that would dominate the 1970s, or that the dollar's value would rise so dramatically in the 1980s, and that it would remain high for so many years.

These two examples make another point as well, however. Some trend-breaking events can be at least partially anticipated. In the 1960s,

some experts postulated that dwindling petroleum supplies and the formation of the Organization of Petroleum Exporting Countries cartel could have a major impact on energy prices in the 1970s, although few would have predicted the sudden and dramatic nature of the 1973 oil embargo. Similarly, the deterioration of U.S. trade balances began in the 1970s, and while the combination of events that led to the unprecedentedly large trade deficits of the 1980s was perhaps not predictable, it was not unthinkable. While nobody could expect forecasters to pinpoint these major events, sensitivity analysis of occupational forecasts could postulate such events and examine the possible effects. This kind of sensitivity analysis—looking at how model outcomes change when different assumptions are used—would not necessarily yield more accurate forecasts, but it might give policy makers, career counselors, and people making career decisions better insight into the uncertainties and risks surrounding different career choices.

Forecasts can become outdated rather quickly. For example, forecasts published in April 1979 projected that manufacturing would employ over 23 million people in 1985; actual manufacturing employment was only 19.3 million in September 1985, and there are no prospects of its reaching 23 million in the immediate future. Indeed, as discussed in chapter 4, the long-term trend is likely to be flat or declining. Forecasts of employment in specific industries also can fall wide of the mark in just a few years; the April 1979 BLS projections estimated that 590,000 people would be employed in the steel industry in 1985; but steel employment in September 1985 was only 291,000, with few prospects for any increase.

These problems are not due to poor forecasting techniques or tools, nor are they necessarily due to poor judgment. Forecasting—particularly long-term forecasting—is inherently likely to be inaccurate, simply because it is impossible to anticipate all the factors that will affect the Nation's economy in the future. As a result, BLS corrects and updates its long-term forecasts every other year, but even this exercise can leave the forecasts with significant inaccuracies.

Although the overall accuracy of the long-term projections probably cannot be improved significantly, a few modifications in the current process could result in some incremental improvements over time. Knowledge of the impact of technology in the workplace might be improved if measures of technological change were incorporated into the on-site evaluations and questionnaires used by ETA in updating the *Dictionary of Occupational Titles (DOT)*. This knowledge could serve to improve projections if effectively used by the BLS projection staff. BLS might also improve the projection process by documenting all technological assumptions made within the projection model and evaluating these assumptions when data become available. Sensitivity analysis of major technological assumptions could also be useful in exploring the range of possible effects.

While additional funding might improve BLS's ability to estimate such things as the employment effects of new technologies, policy-makers cannot expect great accuracy in occupational forecasts, particularly for the long-term projections. Calls on the part of some vocational educators, employment and training managers, and PICs for very detailed occupational forecasts may be based on unrealistic ideas about what these analyses can reasonably be expected to provide.

Qualitative Occupational Information

In addition to its occupational forecasts the Labor Department provides qualitative information about the nature of different jobs, training requirements for specific occupations, pay scales, and the expected number of opportunities in different occupations. The publications used most widely include the *Occupational Outlook Handbook*, the *Occupational Outlook Quarterly*, and the *DOT*.

Funding for these occupational information publications, and for supporting functions in BLS and ETA, has been declining. Funding for the *Occupational Outlook Handbook*, for example, has dropped over the last few years; the number of jobs reviewed in the handbook was cut from over 300 in the 1978/1979 edition to about 200 in the 1982-83 edition. More occu-

pations are planned for review, however, in the 1986-87 and 1988-89 editions. Although the handbook remains a major source of information about possible future jobs, some job counselors believe that its usefulness declined with the reduction in number of occupations reviewed.

Whether funding is adequate to maintain *DOT* is another concern. *DOT*, consisting of detailed descriptions of thousands of jobs, is a major source of qualitative information about occupations in the United States, and is an important basis for other employment information developed by the Department of Labor (including the *Occupational Outlook Handbook*). Without constant updating, *DOT's* usefulness, and the usefulness of the occupational information series that rely on it, will decline.

The need for current qualitative information about jobs is explicitly recognized in Section 462 of JTPA. The provision calls on the Labor Department to maintain “descriptions of job duties, training and education requirements, working conditions, and characteristics of occupations.” ETA plans to update *DOT* in its efforts to fulfill this requirement. Data gathering—finding out what jobs consist of—is planned for new technology-oriented jobs. Existing job descriptions are slated for updates on a rotating schedule. To complete this work, people are being trained for onsite job evaluations. Surveys of additional job sites are planned to check the accuracy and applicability of the onsite evaluations.

Whether these plans will be carried out at the level needed to maintain and update *DOT* will depend on adequate funding for several years. Spending for *DOT*, as reflected by obligations, has declined in the last decade from an estimated \$2.6 million in fiscal year 1975 to an estimated \$1.8 million in fiscal year 1985. The Administration has requested \$1.7 million for this activity in its 1986 budget proposal—a level of funding that may not be adequate to meet the objective of obtaining and updating qualitative information about jobs that is stated in JTPA. Congress may wish to assure that spending for *DOT* is kept at an adequate level to im-

prove qualitative information on jobs (option 6b, table 2-4).

Research on the Effects of Technology on Jobs (Issue Area 7, Table 2-4)

As discussed in chapter 8, technology alone does not dictate the nature of jobs. When new technologies are adopted in the workplace, jobs can be redesigned and work reorganized in a number of different ways. Productivity, the quality of jobs, and the level of unemployment may all be affected by these managerial choices. Better understanding of these issues may help firms improve both their international competitiveness and the quality of jobs.

A focused program of Federal support for research in work organization and job design, and greater emphasis on the dissemination of research results to industry could enhance understanding of these issues. Options relating to such research include: 1) conducting oversight on current research on the subject by Federal agencies, 2) providing support for evaluation of the employment effects of federally supported technology development efforts, and 3) funding research projects or programs on alternative work organization and job design approaches. While the U.S. Department of Defense (DOD) and some other Federal agencies (e.g., the National Science Foundation (NSF)) conduct or support “human factors” research, funding for research on work organization and job design by these agencies is probably quite modest.

Research on technological change and its implications for job skills and vocational education is emphasized in several provisions of the Carl D. Perkins Vocational Education Act of 1984. Among other things, the act specifically directs the Secretary of Education and the National Center for Research in Vocational Education to undertake research activities on “curriculum materials and instructional methods relating to new and emerging technologies, and assessments of the nature of change in the workplace and its effects on individual jobs.” As this act is implemented, questions about

funding priorities and research commitments related to technological change and its effects on jobs could be a subject of congressional oversight deliberations.

The Federal Government has done little to evaluate the employment implications of its own research and development (R&D) activities. Some federally supported innovations (such as numerically controlled machine tools and computer-aided design) have had significant effects on the workplace in the past. Continuing Federal support for technology development in such areas as programmable automation and advanced computer systems will also result in innovations affecting jobs in the future. While some evaluation of the employment effects of federally supported technology development may have been conducted ad hoc, this is not normally a specific component of the research budgets of Federal agencies.

One way to focus more attention on this issue would be for Congress to direct Federal agencies to conduct evaluations of the likely effects of their major R&D efforts on the nature of jobs and the level of employment (option 7a, table 2-4). There could be drawbacks to this approach: such assessments might be considered as a drag on technological innovation. Also, those most knowledgeable about the research may not be best suited to assess its social implications. An advantage of the evaluations is that they could provide an early warning system alerting decisionmakers to upcoming changes in technologies that could affect employment education, and training needs in the future.

The Federal Government could also provide greater support for research and education on work organization and job design (option 7b, table 2-4). Government support could come through the NSF's program to establish Engi-

neering Research Centers at universities. The goal of the program is to develop engineering knowledge through cross-disciplinary research that would improve the competitiveness of U.S. industry and prepare engineers to contribute to that effort. In the first year of operation of the program, NSF approved six centers to undertake research in several engineering fields. If fully funded, the six centers could receive up to \$94.5 million over a 5-year period.

The concept behind these centers is to further fundamental research in engineering, increase the effectiveness of engineering education, and strengthen linkages between universities and industry. So far, all of the proposals for manufacturing-related centers emphasize advanced automation in the factory. Yet people remain the most adaptable element in manufacturing systems. To preserve employment in the relatively high-wage U.S. economy, U.S. firms and industries must maintain or regain competitiveness. A combination of advancing technology and work organization designed to make use of a skilled work force could help to achieve the goals of competitiveness, expanding employment, and providing satisfying jobs. One way to pursue these goals would be for Congress to direct NSF to request proposals for an engineering center with a research mission that focuses on alternative approaches for work organization, and evaluation of the effects of these alternatives on the nature and number of jobs. Taking advantage of its affiliation with a university, such a center could also work towards enhancing recognition among engineering students and faculty of the importance of matching technical designs with skills available in the production work force. If funded at about the same level as the existing engineering research centers, the center would require about \$3 million over a 5-year period, or about \$600,000 per year.

STRATEGIES FOR FACILITATING WORKLIFE TRANSITIONS

Structural unemployment might be lessened if workers in displacement-prone industries or occupations begin to make transitions to dif-

ferent careers before they actually lose their old job. Often, changes leading to displacement develop over a long time, sometimes several

years. While some workers may effectively use the time to find new jobs or develop different job skills that may be in greater demand, most do not. Should more attention be focused on helping currently employed workers manage worklife transitions before they lose their jobs, and, if so, what kinds of measures should be emphasized?

These questions are examined below in three issue areas: 1) improving basic skills among the large number of adults (including many employed adults and many displaced homemakers) with serious educational deficiencies, 2) expanding the role of the continuing education system in helping workers prepare for possible career changes, and 3) considering the potential for retraining active work forces through incentives to employers to offer broader education and training opportunities to blue-collar and lower level white-collar workers.

These issues have broader implications than their potential to help some workers avoid displacement in the future; this is part of the reason why OTA selected them for analysis. A well-trained, highly motivated work force is important to the prosperity of the domestic economy and to the ability of U.S. firms to compete internationally. The pace of technological change requires that many workers upgrade or develop new job skills during the course of their working lives. Due to demographic changes, the burden of making such worklife transitions will increasingly fall on the shoulders of older workers, who as a group have traditionally been disinclined to undertake retraining. Helping workers make occupational or worklife transitions may help U.S. firms to make technological or economic changes that benefit the economy as a whole. If Congress wants to provide more assistance for occupational adjustment, a wide range of options are available. Selected options are summarized in table 2-5 and discussed below. (A separate section of this chapter discusses the role that instructional technology can play in adult education and training.)

Basic Skills and the Work Force (Issue Area 8, Table 2-5)

A sizable portion of the U.S. work force has serious deficiencies in basic education skills (including basic mathematics, reading, writing and oral communications). Workers with such deficiencies often do not advance in their jobs, and have difficulty adapting to technological changes. If displaced, they are usually less able than better-educated workers to compete for new jobs and may have to settle for entry-level or lower skill jobs. Generally, employers are reluctant to hire workers with basic skills deficiencies, since even low-skill jobs often involve reading, writing, and simple calculations. The costs of basic skills deficiencies to U.S. business firms have never been estimated; anecdotal evidence suggests that they are high. Examples of these costs include mistakes in inventories, inability of workers to follow written instructions, and lost time due to increased supervisory requirements.

The need for increased emphasis on basic skills in displaced worker programs has already been discussed. Obviously, however, it is preferable for workers to remedy basic skills deficiencies while they are employed. (Still better, of course, is to learn basic skills in school to begin with.) Several issues related to improving basic skills in the work force are discussed below, including: 1) whether current funding for adult basic education programs is adequate, 2) whether employers and the private sector should play a greater role in such programs, and 3) whether more information is needed about the magnitude of the problem. A separate section of this chapter discusses issues and options related to the Federal role in developing instructional technologies, including technologies used in adult basic education.

The Issue of Funding

Since 1966, the Federal Government has provided grants to States for remedial education under the Adult Education Act (AEA). These

Table 2-5.-Selected Options for Facilitating Worklife Transitions

Issue area and options	Relationship to other options	Relationship to current policy	Estimated cost of option to Government
<i>Issue Area 8: Improving basic skills in the work force</i>			
<p>a) Expand Federal support for State and local adult basic education. Program elements might include: 1) Increased funding for services and outreach activities under the Adult Education Act (AEA), and 2) development of a long-term strategy to increase participation in the AEA, including goals and related funding levels. Development of a strategy for congressional consideration could be done through a special commission or study</p>	<p>Options to provide more emphasis on remedial education in JTPA Title III programs are discussed in table 2-1, Issue Area 2.</p>	<p>Remedial education services supported by AEA are undertaken by several thousand organizations at the State and local level. Remedial education services can also be offered under Title III of JTPA, Title II of JTPA, and in some circumstances under programs supported by the Federal vocational education program. Some States also use social services block grants to provide remedial education. In contrast to these programs, AEA services are provided to the public at large, not special populations,</p>	<p>Option 8a would increase appropriations for AEA to the level authorized in FY 85 (\$140 million) for the FY 86-88 period (when such sums as necessary are authorized) Full appropriation at the authorized level for FY 85 would cost the Federal Government \$40 million more than the Administration proposed in its FY 86 budget request and \$38 million more than was appropriated in FY 85. The costs of a long-term strategy for dealing with functional illiteracy are difficult to estimate without better information about the number of adults with a need for basic education, and about goals for a national strategy. The AEA program served about 2.3 million people in 1981; some believe a program two or three times as large would still not reach all adults with basic skills deficiencies,</p>
<p>b) Require regular, systematic surveys of basic skills performance levels for the U.S. adult population, and provide appropriations for this purpose every 3 or 4 years.</p>	<p>Option 8b would be helpful in implementing long-term strategy for improving basic skills, such as proposed in option 8a. Option would also be useful in determining whether basic skills problems are on the increase, as is widely speculated. By some estimates, 20% of the adults in the U.S. have very serious basic skills problems. Among employed workers, the figure may be as high as 15%. These estimates are based on a 1974 survey that has not been updated.</p>	<p>Section 1242 of the Education Amendments of 1978 (Public Law 95-561) specifically authorizes the assessment of the performance of children and young adults in basic skills through a National Assessment of Educational Progress (NAEP). A new, one-time survey of literacy skills covering 21 to 25 year olds is being conducted for the NAEP by the Educational Testing Service, using discretionary Department of Education funds. Results of the NAEP survey are expected in the spring of 1986</p>	<p>The NAEP one-time survey of 21 to 25 year olds costs about \$1.9 million. It is believed that a similar amount would be required to survey an all-aged sample of the adult population, due to efficiencies gained through sampling of a broader section of the population and through use of the NAEP model.</p>
Issue Area 9: Encouraging adults to use continuing education in worklife transitions			
Selected options are			
<p>a) Authorize an outreach program to inform and encourage adults to make use of the education and training resources available in their communities.</p>	<p>This option would increase adult awareness of postsecondary educational opportunities, including those for adults in need of remedial education before they could participate in postsecondary education. A separate outreach program for people with very serious basic skill deficiencies may also be needed,</p>	<p>Title I of the Higher Education Act of 1965 originally supported outreach activities for adults that were underserved by educational institutions. This program has not been active since 1980; however, legislation to reinstate adult outreach has been proposed.</p>	<p>A legislative proposal introduced in the 99th Congress would authorize \$50 million for FY 86, and such sums as necessary through FY 91, for postsecondary continuing education grants related to renovation and outreach, and research and development, among other provisions</p>
<p>b) Authorize targeted educational assistance to workers likely to be displaced. One option would be for State or Federal labor or employment agencies to identify occupations or industries vulnerable to widespread placement. Workers in such occupations or industries would be eligible for preferential treatment in receiving Federal financial assistance for students.</p>	<p>A targeted program of educational assistance could be one of the services offered in conjunction with advanced notification and pre-layoff assistance (options 1b and 1c in table 2-1)</p>	<p>Under current policies, employed adults who are part-time students find it difficult to compete for available Federal financial assistance</p>	<p>A wide range of alternatives has been proposed in Congress and elsewhere to help workers undertake education as a way to avoid displacement or to save money for future training needs. Many of these proposals would probably not greatly enhance educational opportunities for blue-collar and lower income white-collar workers. A targeted approach might partially overcome this problem if limited to loan programs, a preference system would have little overall impact on costs. Grants, or other forms of direct assistance, could entail substantial costs.</p>

Table 2-5.—Selected Options for Facilitating Worklife Transitions-Continued

Issue area and options	Relationship to other options	Relationship to current policy	Estimated cost of option to Government
<i>Issue Area 10: Encouraging training and retraining of active work forces</i>			
a) Continue tax treatment for employer provided education programs under section 127 of the Internal Revenue Code, with a stipulation that information continue to be developed on the characteristics of workers who participate in the program.	This option could be adopted either singly or in conjunction with other options for employer training. The section 127 program is one of the few existing incentives by which the Federal Government encourages employed workers to undertake continuing education that is not necessarily related to a worker's current job	Congress has allowed employees to exclude educational assistance provided under a qualified company program from their taxable income, even when the education was not directly related to their current jobs. This exclusion will not apply to the 1986 tax year unless specifically extended by Congress. The Administration's 1985 tax proposal suggests that this program be extended and made permanent	Very little hard data exists about the costs of the section 127 program in terms of lost revenue to the Federal Government. Estimates made in 1984 on extension of the program through the end of 1985 suggested that the extension would cost a total of \$186 million for FY 85 and the first quarter of FY 86.
b) Conduct oversight on the experience to date with employer provided training that is supported by Federal or State programs	This option could be adopted singly, or as part of a broader consideration of additional initiatives for employer provided training	The 1984 amendments to the vocational education program allow for employer provided training of active work forces under certain circumstances.	Not estimated, but small
c) Consider additional incentives for employer provided training (e.g., use of tax incentives) or possible use of a payroll tax as a mechanism for financing retraining of either active or displaced workers. One proposal would allow business a 25% tax credit for future training expenses exceeding the firm's average for the prior 5 years. Eligible training activities would include apprenticeships, cooperative vocational education programs, and other activities identified by the Secretary of Labor	Expanded public support for employer provided training can be seen as a defense against displacement if it results in a better trained work force	Presently, employers count employee training expenses as a business expense. Some cooperative vocational projects are carried out in conjunction with State and Federal programs. A few States also provide customized training to business, or support retraining of active work forces when the alternate could be displacement of workers.	Under the 25% tax credit proposal, the Federal Government would pick up one-fourth of the costs of increased employer expenditures for training in eligible activities (e.g., apprenticeship, occupational training, and activities approved by the Secretary of Labor). The degree of employer response is not estimated.

SOURCE: Office of Technology Assessment

programs offer courses in adult basic and secondary education and courses in English to speakers of other languages. Some other Federal programs can also fund remedial education services for certain groups of adults: for example, JTPA Title II projects can provide basic education services to economically disadvantaged youths and adults; Title III projects can offer remedial education to displaced workers; and some States allocate part of their social services block grants under Title XX of the Social Security Act for basic education services to welfare recipients. The AEA is the largest source of Federal funds for adult basic education (ABE) in the general population, however.

About 2.3 million adults received remedial education under the AEA program in the program year ending June 30, 1981, the last year for which official statistics on participation in the Federal AEA program have been collected from the States.¹⁹ The total number of adults participating in all literacy and basic skills programs is larger, since it includes people served by volunteer groups, community organizations, and State or local projects not funded under AEA. However, the total is difficult to estimate because of the likelihood that some participants are counted more than once.

The more than 2 million adults receiving remedial education each year probably are only a small part of those in need of some remedial education. The size of the population in need is not known. However, the U.S. Department of Education estimated that up to 27 million adults were functionally illiterate in 1982. It also estimated that about 2.3 million adults (including young high school dropouts, high school graduates with inadequate basic skills, and legal or illegal immigrants) are added to the pool of Americans in need of basic edu-

cation each year. On the basis of these estimates, some people have concluded that as many people are added to the pool of adults in need of basic education each year than are served by the AEA programs.

These figures should not be accepted uncritically—the 27 million figure, for example, was derived by applying 1974 survey data to the 1982 population of adults, and the 1974 survey had serious shortcomings (see ch. 7). Moreover, all efforts to define “functional literacy” are based on somewhat arbitrary assumptions about the level of literacy required to function effectively in society. Nonetheless, even though the exact number of adults in need of remedial education is unknown, the number is clearly large; a serious basic skills problem does exist in this country. Over the long term, improvements in education of children in primary and secondary schools may ease the problem. However, the need for remedial education in the adult population will remain a crucial educational priority for the foreseeable future.

Some States report that their AEA programs have not been able to keep up with the demand for remedial education. Illinois, which served 114,000 people in its AEA and State-supported basic education programs in 1984, estimates that 44,000 additional people could have been served if resources had been available. Illinois officials estimate that 16,000 people were on actual waiting lists to receive basic education services at the end of May 1985. California, which led the Nation in the number of people served by AEA projects (over 600,000), may have turned away 1,000 people a week in 1984.

When waiting lists exist, many AEA projects curtail outreach activities designed to attract the large population of educationally disadvantaged adults who lack the motivation, self-confidence, or information to seek out AEA classes. Administrators of local programs are reluctant to reach out to this group when their classrooms are already filled with more motivated adults.

While some States have recently increased funding for adult basic education, more Federal funding almost certainly will be needed

¹⁹Unofficial statistics provided by State program administrators suggest that as many as 2.6 million people participated in the program in 1984. It is unclear whether this apparent increase reflects an actual increase in the number of participants in the AEA program itself, or different reporting procedures. Some States, for example, may not distinguish between adult education projects supported with AEA funds and adult education projects supported solely by other funds when they prepare State level reports that are not officially required by AEA.

if there is to be a significant expansion in the national commitment to remedial education. In 1982, total Federal and State expenditures for the AEA program were \$229 million, of which 56 percent was contributed by the States and localities, and the remainder by the Federal Government. Federal appropriations for the AEA program have remained in the \$100 million range for 3 years. Congress appropriated about \$102 million for the AEA program in fiscal year 1986. Higher funding, more in keeping with the authorized level of \$140 million for fiscal year 1985, could help restore the Federal commitment to its level of a few years ago, after inflation is taken into account.

It is more difficult to determine the level of spending needed, at all levels of government, to deal effectively over the long-term with the need to improve adults' basic skills. Some studies estimate that a multiyear, multibillion dollar commitment would be needed. In addition to more funds, new delivery systems, and different approaches to basic skills education could be required. All projections of long-term fiscal needs for adult basic education programs are hampered by the unreliability of available data on the number of adults with basic skills deficiencies.

Given the uncertainty about what outcomes could be expected from a given level of funding, Congress might wish to create a special study commission (or call on the executive branch to do so) to develop an overall long-term strategy for addressing the basic skills problem. Several different participation goals (with associated funding requirements) could be identified. The commission or agency formulating the strategy could be required to develop the information in time for congressional deliberations on reauthorization of the Adult Education Act (the current authorization expires on Sept. 30, 1988). This, together with a higher level of interim funding of the program, is an option Congress may wish to consider (see option 8a, table 2-5).

Some sentiment already exists in Congress for reevaluating approaches for dealing with functional illiteracy. For example, joint resolutions introduced in both Houses of the 99th

Congress would establish a national commission on illiteracy.²⁰ The temporary commission, half of whose members would be appointed by the President and the other half by Congress, would report and make recommendations to the Congress within one year of its establishment. As these proposals are framed, it is not clear how much emphasis the proposed commission (if authorized) would give to adult functional illiteracy, relative to improving basic skills of young people high school age.

The Role of Employers and the Private Sector

Given constraints on Federal spending, considerable interest exists in the potential of alternative delivery systems for adult basic education. Such alternatives include more reliance on volunteers and volunteer organizations to provide educational services, and greater involvement of employers and unions in sponsoring education projects for workers. Foundations and other nonprofit organizations are also active in supporting innovative basic skills programs.

Volunteer organizations, such as Laubach Literacy Action and Literacy Volunteers of America, conduct their own literacy projects, and also have ties to State and local ABE projects. Although nationwide data are not available, volunteers are also used in basic education projects supported by the AEA. If well-trained and effectively supervised, volunteers could help expand the reach of AEA-supported projects, and allow some people on waiting lists to enter classes sooner. Volunteers often provide one-to-one tutoring, an approach that can help overcome lack of self-confidence or lagging motivation. Often, individual sessions can be arranged between volunteer tutors and clients to fit the clients' schedules.

²⁰The Commission is proposed in House Joint Resolution 213 and Senate Joint Resolution 102, as introduced in the 99th Cong. A similar commission and study was called for in S. 1160, the proposed National Defense Authorization Act for fiscal year 1986 as passed by the Senate on June 5, 1985. The provision was dropped in the conference committee on the bill. For status and discussion of these and other proposals in the 99th Congress, see Paul M. Irwin, "Adult Literacy Issues, Programs, and Options," Library of Congress, Congressional Research Service, Issue Brief IB85167.

Volunteerism is emphasized in the Department of Education's Initiative on Adult Literacy, announced by President Reagan and former Secretary of Education T.H. Bell in September 1983, and the National Adult Literacy Campaign, sponsored by the Coalition for Literacy in conjunction with the Advertising Council. Under the Campaign, a national advertising effort to attract students and to recruit volunteer tutors and corporate sponsors was launched in January 1985. At present, it is not clear whether State and local volunteer organizations and the instructors and administrators of adult basic education programs are prepared to make effective use of volunteers who respond to the campaign. It may be possible to improve the use of volunteer tutors by providing funds for their recruiting and training. Federal seed money, channeled through the Department of Education's Division of Adult Education, could help build the capacity of local volunteer organizations.

Employers and unions could play a significantly greater role than they do now in efforts to improve basic skills in the work force. Some companies sponsor programs at worksites or in conjunction with local educational institutions to provide basic skills courses to their employees. So far, no one has collected the data needed to evaluate these company-sponsored programs. In theory, at least, they offer the advantages of convenience of time and place and of peer group support. However, most companies do not offer basic skills programs, and many feel that this is the task of the public schools alone.

Identifying current and potential roles of employers in providing basic skills education to employees could be a subject for congressional oversight of AEA. Or, if Congress decides to establish a commission on functional illiteracy, it could direct the commission to assess ways to encourage employers to provide basic education to their workers.

Given the limited funds available for projects that serve all eligible adults, it may be questioned how much direct public support should be given to employer-provided basic education projects. In reauthorizing AEA in 1984 through

Public Law 98-511, Congress authorized States to support ABE projects undertaken by for-profit organizations when this would contribute significantly to the objectives of the act, and when the for-profit organization could provide substantially equivalent education at a lesser cost or provide services and equipment not available in public institutions.²¹ Thus, it appears that employers, as well as proprietary schools and for-profit learning centers, can qualify for AEA funds under some circumstances. Similar provisions are contained in the Carl D. Perkins Vocational Education Act of 1984, which authorizes basic skills programs in support of vocational education objectives. Depending on whether States choose to fund such activities, a track record will begin to emerge in the next few years on these forms of private-public sector educational partnership. If additional public support for employer-provided basic skills courses is merited, care will be needed to assure that traditional basic education programs for the public at large are not jeopardized. The danger of supporting private programs at the expense of general public ones might be avoided if public support for employer-provided basic education were part of an earmarked package of training incentives. Selected options to encourage greater employer involvement in training the active work force are discussed in Issue Area 10 of this chapter.

The Importance of Information and Monitoring

Better information is essential for formulating and monitoring the success of long-term programs to reduce functional illiteracy in the United States. The most frequently cited estimates of functional illiteracy are derived from the 1974 survey of adult performance levels which categorized 20 percent of the adult population as functionally incompetent and another 30 percent as marginally competent. This survey was not a survey of literacy levels, but nonetheless has been widely cited as a measure of functional illiteracy.

²¹Public Law 98-511, Section 304.

The need for periodic monitoring of the scope of the adult basic skills problem in the United States is clear. A new one-time survey of literacy levels among young adults (21 to 25 years of age) is now being undertaken by the Educational Testing Service as part of the National Assessment of Educational Progress (NAEP). Results of the new survey are expected in the spring of 1986. Given the magnitude of the problem, periodic surveys (perhaps every 3 or 4 years) of adult literacy and basic skills performance levels on a national basis would be desirable. The cost of the current NAEP survey (for young adults only) is estimated to be \$1.9 million. It is believed that an expanded survey, sampling functional literacy levels of all adult age groups, would cost about the same, since the already developed NAEP model could be used to analyze a broader sample of the adult population. Survey findings would be most useful to policy makers if they could be related directly to needs for adult basic education programs and associated funding levels.

Better information about State and local AEA projects, and projects conducted through alternative delivery systems (such as employers, volunteer organizations and foundations, and other Federal programs) would also be desirable. From 1982 through 1984, restrictions on data collection by the Department of Education were in effect for the AEA program. As a result, official national data obtained from the States about their AEA programs is quite limited for the program years 1982 through 1985. In reauthorizing AEA in 1984, Congress was more specific about the kinds of information the Secretary of Education may obtain from the States under the program. In addition better information about basic education services that are funded separately from AEA projects would help to determine the nationwide commitment to remedying adult basic skills deficiencies.

If Congress wishes to be assured that a continuing effort is made to improve information on basic skills, it may wish to consider providing separate funding for periodic surveys of adult literacy levels (option 8b, table 2-5). It also may wish to be assured, through its oversight

of implementation of the 1984 amendments to AEA or through establishment of a special study or commission on functional illiteracy, that data on State and local programs are adequate to meet congressional needs. Developing better estimates of employer-provided basic education, for example, could be a function of a study or commission on adult education, while a responsibility to develop information on federally supported activities (other than those through AEA) could be assigned to the Federal Interagency Committee on Education.

Continuing Education and Worklife Transitions (Issue Area 9, Table 2-5)

Some workers in declining occupations or industries may be able to lessen the likelihood of displacement in the future by getting training in new job skills while they are still employed. An extensive system of adult education and training exists in the United States. Parts of this system, such as community colleges and some vocational schools, are highly accessible to adult workers.

As a practical matter, comparatively few blue-collar workers undertake preventive retraining. Many workers do not believe that the education and training system has much potential for helping them prepare for occupational changes even when it is clear that their jobs are vulnerable to displacement. Also, workers often have very limited information about the kind of training that is most likely to open new job opportunities. Moreover, workers preparing for career changes usually have to do so on their own initiative, often with little or no financial support from employers or the Government. For example, most adult workers seeking training for a career change study part time, and only a small portion of Federal student-aid is available to part-time students. While some adults are able and willing to finance their own retraining, many are not prepared to do so.

Over the last few years, several approaches have been proposed to make it easier for adult workers to take education and training that

would help them change careers. These approaches include, among others: 1) greater emphasis on outreach, to encourage more adults to take part in education and training; and 2) expansion of financial assistance available to adults in education programs, either directly through student-aid programs, or indirectly through changes in the Internal Revenue Code. Another approach would be to target special assistance for retraining workers in occupations or industries that are subject to widespread displacement. In theory at least, this approach could help some workers in declining occupations make career transitions while they are still employed.

Expanded Emphasis on Outreach Activities for Adults (Option 9a, Table 2-5)

Several barriers prevent many adults from making use of educational programs in their communities. These include personal and psychological barriers, such as lack of self-confidence; difficulties in scheduling instruction at times and locations convenient to adults; lack of career counseling for adults; and lack of information about available educational resources and opportunities. (Financial barriers are also important; these are discussed separately.)

Increased Federal support for adult outreach is under consideration, and several bills on this issue have been introduced in the 99th Congress.²² Some bills propose to reinstate an outreach program as part of Title I of the Higher Education Act of 1965 (as amended), a law up for reauthorization in the 99th Congress. Many of the continuing education activities originally authorized under this title were modified by the Higher Education Act of 1980. Funding for the continuing education and adult outreach activities under Title I peaked at \$18 million in 1976. Since fiscal year 1981, when most of the funds already appropriated for the adult outreach program were rescinded, no funds

have been appropriated specifically for the outreach provisions of Title I.²³

Renewed Federal support for outreach activities might encourage more workers to participate in career education and training, and cause educational institutions to offer more programs to meet the educational needs of undeserved groups of adult learners. One of the Title I bills introduced in the 99th Congress (S. 480) would authorize up to \$50 million in fiscal year 1986 (and such sums as necessary through 1991) for innovation and outreach projects and R&D activities related to postsecondary continuing education. The bill identifies several groups of adults as likely to benefit from these programs, including (among others) dislocated workers, people (especially women) returning to the labor force, those needing remedial education or counseling to benefit from postsecondary education, and employees of small or medium size firms that do not offer training and education activities,

The bill would authorize the Secretary of Education to make grants to institutions of higher education (including qualifying proprietary institutions and postsecondary vocational institutions) to better serve adult learners. The grants could be used to make educational opportunities available to adults at convenient times and locations (including the workplace); to promote collaborative efforts with employers and employees to make postsecondary education responsive to local, regional, and national employment and economic conditions; to help adults overcome barriers limiting their participation in postsecondary education; to provide information and counseling services for adults; to develop innovative delivery systems and curricula to facilitate career development and transitions; and to implement technology-based delivery systems to enhance adult access to postsecondary education. The grants could not be used for stipends.

²²See, for example, H.R. 3700, the proposed Higher Education Amendments Act of 1985 as reported by the House Committee on Education and Labor on Nov. 20, 1985, S. 480, introduced on Feb. 20, 1985, and H.R. 1473, as introduced on Mar. 7, 1985.

²³As discussed in *Reauthorization of the Higher Education Act: Program Descriptions, Issues and Options*, prepared by the Congressional Research Service for the Senate Committee on Labor and Human Resources, February 1985 (Senate Print 99-8), pp. 440-441.

The need for expanded outreach activities in remedial education programs is discussed separately under the heading Basic Skills and the Work Force (Issue Area 8) of this chapter. Remedial education programs traditionally attract only highly motivated adults; outreach directed to less motivated adults with basic skills problems may attract more people to these programs. The Title I outreach activities in the proposals discussed in this section could be used to provide guidance, counseling, and remedial instruction to adults who need such services to benefit from postsecondary education. Another option would be to expand the emphasis on outreach activities in publicly supported remedial education programs, such as those conducted with the support of the Adult Education Act. Neither of these options is mutually exclusive.

Financial Assistance for Continuing Training and Education

Federal financial assistance to working adults for continuing education traditionally has been quite limited. However, in recent years, proposals have been made to increase the level of support or to broaden the circumstances under which adults could receive financial assistance for continuing education. Most of these bills and legislative proposals can be grouped in three broad categories: 1) increasing the access of part-time adult students to Federal financial aid for education, 2) broadening the tax deductibility of education and training expenditures to include education not directly related to one's current job, and 3) creating special tax advantages for individual training accounts to finance education or training. This approach is discussed in detail in chapter 6.

Most employed adults who participate in education or training are part-time students and are not enrolled in degree or certificate programs. This limits their access to Federal financial assistance. The major Federal aid programs for postsecondary students—Pen grants, Guaranteed Student Loans, College Work-Study, Supplemental Educational Opportunity Grants, and National Direct Student Loans—are structured primarily to help dependent, full-time students in the 18- to 22-age range.

With the exception of Guaranteed Student Loans, students are eligible for Federal aid under these programs only if they are enrolled in "eligible programs" leading to a degree, a certificate, or other formal program of preparation for a recognized vocation. This requirement excludes more than half of the adults in postsecondary courses. Only two programs, Supplemental Educational Opportunity Grants and College Work-Study, are available to students enrolled less than half time. Since 1980, Congress has permitted up to 10 percent of the funds in these two programs to be given to students who are enrolled less than half time. Even so, few schools earmark the full 10 percent to these students.

Many adults who might otherwise be eligible for assistance may have trouble competing for funds because eligibility requirements are designed for financially dependent young people. For example, adults who own homes may be penalized in calculations of the need for financial aid. Displaced workers are affected by calculations of need based on the previous year's income. Legislation has been proposed in the 99th Congress which would require discounting of home equity and unemployment benefits in calculating financial aid needs for dislocated workers, thus allowing determination of needs to be based on their current income.²⁴ Other options Congress might consider to increase the access of adults to Federal student aid include modifying the degree and certificate requirement and earmarking more aid to students enrolled less than half time.

Several bills have been proposed to allow taxpayers to deduct or, in some cases, take tax credits for eligible education expenses in calculating their income taxes. While some of these bills limit the deduction or credit to accounts established for dependents of the taxpayer, others also allow the taxpayer to deduct or take credit for his or her own educational

²⁴See, for example, H.R. 1611, the proposed Dislocated Workers Act of 1985, as introduced on March 20, 1985 and H.R. 3700 as reported by the House Committee on Education and Labor on Nov. 20, 1985.

expenses.²⁵ The deduction allowed varies from \$1,000 to \$2,000 annually in different bills. Some bills specifically identify expenses incurred at vocational schools as eligible expenses, while others do not. Broadening the tax deductibility of education expenses would benefit most those with higher incomes (and thus higher tax brackets), and therefore may be more useful to managers and professionals than to blue-collar workers; tax credits would be of greater benefit to lower income workers than deductions.

Similarly, professional and technical people with relatively high incomes may be more likely to make use of individual training accounts than workers with lower incomes. As proposed in bills introduced in the 99th Congress,²⁶ the individual training account approach would authorize tax deductible training accounts, funded jointly by employers and workers, that could be drawn on to provide vouchers for training or relocation assistance if a worker was displaced. Contributions to individual training accounts by both employers and employees would be deductible for income tax purposes. Large employers (defined as companies employing 25 people or more) who refused to participate in the program would not be eligible for certain reductions in Federal unemployment taxes.

Another approach for assisting adults in financing education would be to authorize taxpayers to establish tax-deductible education savings accounts regardless of their employment status. One possibility would be to permit individual taxpayers to set up special tax-deductible savings accounts to meet educational expenses of themselves or their dependents. Such a tax deduction might be extended to taxpayers who do not otherwise itemize deductions, and could be used for educational expenses at an institution of higher learning or a vocational school. Both features could be

attractive to blue-collar workers interested in retraining, but (as with other proposals involving tax incentives) it is hard to tell how many workers would enroll in courses they would not otherwise have taken.

All these approaches—whether aimed at direct student aid or at tax incentives for education—need to be viewed in the context of current debate about the Federal deficit, tax reform, and Federal education priorities. At a time when major reductions in Federal student-aid have been proposed, increases in financial aid to adults might reduce aid available to other categories of students. By the same token, new tax incentives to help workers finance education for career changes, while not intensifying competition for direct financial aid, would affect Federal revenues and may be viewed as contrary to tax simplification and deficit reduction.

Besides options intended to increase access to continuing education for all adults, a more limited and focused approach would be to target some educational assistance to workers employed in declining occupations or industries (option 9b, table 2-5). Workers could use this assistance to obtain new job skills while they still have jobs. Determining worker eligibility for such assistance would depend on projections or forecasts of industrial activities. This could be done at the Federal or State level; workers in declining industries or occupations could be made eligible for special consideration under various education assistance programs.

Such an approach could have both positive and negative features. A matter of concern is whether a targeted approach would reach more than a few workers, given the uncertain reliability of occupational forecasts, and the resistance of many workers to retraining even when they are actually displaced, not merely threatened. Also, it can be argued that it is inappropriate for the Federal government to provide positive incentives for workers to leave any industry or occupation, since it is possible that this might accelerate the process of decline. On the positive side, a targeted approach would help some workers prepare for career transi-

²⁵These include H.R. 96, introduced on Jan. 3, 1985, which would allow taxpayers an income tax credit for education expenses, and H.R. 414, also introduced on Jan. 3, 1985, which would allow an income tax deduction for education expenses.

²⁶These proposals include H.R. 26, as introduced on January 3, 1985, and S. 934, as introduced on April 17, 1985.

tions while still employed, thus easing the process of change and probably reducing the number of workers experiencing displacement in the future. In cases where several months of advance notice of layoffs or plant closings were given, targeted educational assistance could be an especially useful option. In fact, this option could be one of the services offered to workers in pre-layoff assistance programs. (Pre-layoff assistance options are summarized in Issue Area 1, table 2-1).

Employer-Supported Training and Education (Issue Area 10, Table 2-5)

Corporate training activities are sometimes viewed as exclusively a concern for the private sector. However, components of this training system are indirectly supported by the public at large, because of favorable tax treatment of employer-provided training and links between business and publicly supported educational institutions. Thus, questions about access to training and education assistance by different levels of employees within firms, and about the quality and kind of services provided, are likely to be raised increasingly in Congress and elsewhere. Two issues that are especially relevant to legislative debate about the employers' role in helping employees prepare for career changes are: 1) the immediate question of whether to continue favorable tax treatment for employees receiving tuition and other educational assistance from employers offering qualified continuing education programs, and 2) the question of whether greater public support should be provided for training and retraining of active work forces, and for improving access of blue-collar or less educated employees to training.

Access to the Corporate Training System

By virtually any measure, employers are a dominant factor in the continuing education and training of employed workers. Estimates of direct expenditures on training and indirect support of educational activities on the part of employers for their employees range from about \$10 billion to over \$100 billion per year.

These estimates do not include informal training given to employees at the workstation.

While the role of employers is great, it is clear that access to employer-provided or employer-assisted training is by no means uniform. It is generally believed that people who work for large companies are much more likely to receive education and training than those working for small companies. This belief, while plausible, is difficult to substantiate simply because most of the statistical data on corporate training programs focuses on large corporations.

Some larger firms in highly technical fields have established broad continuing education programs that can be used by all employees, sometimes in conjunction with employment security programs aimed at retraining current employees. Also, the recent attention to training and retraining in union contracts is a potentially important vehicle for meeting the needs of workers who are union members. However, only about 18 percent of all U.S. workers belong to unions, and of these, only a minority are covered by contracts with extensive training provisions.

Most corporate training and education is focused on the needs of managers, administrators, professionals, and technicians. In part, this reflects the greater need for continuing education in professional, managerial, and technical careers. Training requirements for many blue-collar jobs often can be satisfied through a few hours or days of instruction. However, the pattern also reflects the reluctance on the part of some employers to provide training in broad transferable skills, since such investments could be lost to the company if the employee found other employment.

In the long run, narrowly focused training and education policies by employers may be self-defeating. A well-educated and highly trained work force, at all levels of employment, is an essential component of an internationally competitive economy. Moreover, corporations with human resource policies that aim to enhance the skills and talents of all their employees may find it easier to attract and keep a

highly motivated work force. At the same time, employers cannot be expected to assume the costs of retraining workers for jobs with other employers.

All current estimates of corporate expenditures in training their employees are of questionable accuracy. Estimates vary from a fraction of 1 percent to 3 or more percent of the gross national product. This lack of reliable data impedes analysis of more important questions, such as whether U.S. employers are underinvesting in human capital, and how the commitment of U.S. employers to employee training compares with that of employers in other advanced economies. Given the importance of these questions to debate about policies related to employer provided training, Congress might wish to call on the executive branch to develop an improved information base on employer-provided training.

Tax Incentives for Employer-Provided Education Programs

Congress generally has not used the Internal Revenue Code as a vehicle for encouraging individuals to participate in continuing education. The major exception has been education or training to maintain or improve an employee's current job skills, or instruction that is required by the employer. Employees can deduct such expenditures as business expenses in calculating their income tax. However, workers cannot deduct education or training expenses to prepare for new careers or different jobs.

The other major exception has been favorable tax treatment of benefits from employee education assistance programs that many companies now offer. These programs provide employees with tuition assistance or other forms of support for courses that may not be directly related to their current jobs. Since 1978, Section 127 of the Internal Revenue Code has allowed employees to exclude educational assistance provided under a qualified company program from their taxable income, even when the education was not job-related.²⁷ If Congress

²⁷Originally authorized for a 5-year period, the 98th Cong. extended section 127 until Dec. 31, 1985 through enactment of Public Law 98-611. The section 127 program had been allowed to lapse at the end of 1983. However P.L. 98-611 re-instated the exclusion and made it retroactive for the 1984 tax year. It also limited the amount of the exclusion to \$5,000.

wishes this exclusion to be continued, it will need to act to extend the provision (option 10a in table 2-5) so that it will apply in the 1986 tax year. (The exclusion expired on Dec. 31, 1985.) Bills to continue the exemption have been introduced in the 99th Congress.²⁸

Some believe that these benefits should be considered income for purposes of the Federal income tax. A key issue in debate about continuing the program is whether the public costs in maintaining the exclusion are justified by the program's potential to reach a broad cross-section of employees. Company education plans that qualify for the Section 127 exclusion must not favor employees who are corporate officers or owners, or are highly compensated in comparison with other employees, and the educational program must be "for the exclusive benefit of the employees." Except for sports, games, and hobbies, the kind of education supported by a company program is not restricted; it can include courses that are not related to the employee's current job.

Labor representatives have argued that because lower level jobs are more narrowly defined, a requirement that courses be job-related in order not to be counted as income would discriminate against lower level employees, including women and minorities. Furthermore, the response of blue-collar workers to employer-provided tuition assistance is generally low because of barriers such as lack of information and lack of self-confidence. If Congress allows tuition assistance to become taxable income, new barriers may be added.

Comparatively little information is available about who benefits the most from favorable tax treatment of employer-provided training, or what the true costs of the program have been to the Federal Government. A 1985 survey by the American Society for Training and Development found that, among the 319 firms with education programs responding to the survey,

²⁸See for example, S. 558 and H.R. 1356, as introduced in the 99th Cong. It should be noted that the Appendix of the President's May, 1985, tax proposal report to the Congress calls for a permanent continuation of the exclusion, and also for the dropping of the \$5,000 annual limitation on the exclusion, Section 1161 of H.R. 3838, the proposed Tax Reform Act of 1985 as passed by the House on Dec. 17, 1985, proposes to extend the exclusion through Dec. 31, 1987.

72 percent of participating employees earned less than \$30,000 per year, and 22 percent earned less than \$15,000. The survey found participation rates to be highest among companies with fewer than 500 employees. The survey was not representative of firms as a whole since over half the respondents employed over 3,000 people.²⁹

In extending the Section 127 provision until the end of calendar year 1985, Congress directed the Treasury Department to provide a report (due at the end of October 1985) on the status of the program. In the meantime, estimates presented in congressional reports on the extension suggest that loss in tax and social security revenue for the five-quarter extension period (ending on Dec. 31, 1985) would be \$155 million in fiscal year 1985, and \$31 million for the first quarter of fiscal year 1986.

Alternative Policies to Encourage Training and Retraining of Active Work Forces

Several proposals have been made in recent Congresses that would broaden Federal support for employee training of active work forces. Many of these proposals have as a stated purpose enhancement of U.S. industrial competitiveness. They emphasize the advantages of training and maintaining an adaptive and skilled work force as a defense against future displacement.

A wide range of policy questions and alternative courses of action are associated with this issue. Specific aspects of the issue that are considered below include: 1) use of congressional oversight to review the experience to date with public incentives for employer-provided training; 2) consideration of whether additional tax incentives would encourage employers to provide broader training and education opportunities to employees; and 3) possible use of payroll taxes patterned after the Federal-State unemployment compensation system as a mechanism for financing employer-provided training in situations where workers might

otherwise be displaced, or, alternatively, in financing training or retraining of displaced workers.

Most existing cooperative approaches to work force education and training on the part of employers, unions, and public agencies are recent in origin. As discussed in chapter 5, some States support or assist training or retraining of work forces by private employers. Often, this training assistance is offered as an incentive to attract new industry to a State or region. Sometimes it is provided as part of a strategy to encourage local firms to stay in an area and to help them remain competitive. Some Federal assistance to State-industry cooperation programs is also available. For example, the Carl D. Perkins Vocational Education Act of 1984, the major law governing Federal vocational education expenditures, authorizes States to use some of these funds for training and retraining of active work forces by private employers, under certain circumstances. While special State programs for adult training and retraining authorized by the Perkins Act have not been funded, some funds under the basic grant program of the act are targeted for adult training and retraining. Evaluation of the experience to date with these programs and activities might be a useful subject for congressional oversight (option 10b, table 2-5). Oversight could broaden public understanding of the issues involved and help Congress evaluate alternative proposals should it wish to expand assistance for employer-provided training (see option 10c, table 2-5).

Several proposals of this sort have been offered in recent Congresses. For example, one purpose of H.R. 1219, the proposed National Training Incentive Act of 1985, would be to stimulate greater investment in training by employers. (The bill also would allow displaced workers to withdraw funds from their individual retirement accounts to finance approved training, without paying a tax or penalty on the amount withdrawn.) The bill would authorize a 25-percent tax credit for a company's training expenditures that exceed the average annual amount it spent on training in the previous 5-year period. Eligible training expenditures

²⁹American Society for Training and Development, *Employee Educational Assistance: Who Pays, Who Benefits* (Arlington, VA: American Society for Training and Development, 1985).

would include registered apprenticeship programs, qualified employer-designed or employer-sponsored training programs, cooperative vocational education programs, programs at postsecondary schools, and other programs for improving job skills directly related to employment.

Possible use of payroll-based funding to train and retrain both employed and unemployed workers has evoked some interest. The use of payroll-based contributions to finance training is perhaps most fully developed in France, where a government-imposed obligation to finance training has been in effect for employers of 10 or more workers since 1971. French companies may use this obligation—currently about 1.1 percent of a firm's total wage bill—to fi-

nance internal training of employees, or for industry-wide training activities. Employers who do neither must contribute an equivalent amount to programs for unemployed people in approved training centers or to the national government.

Another possibility is to levy a special payroll tax on employers equivalent to a small portion of the unemployment insurance tax, and earmark it for training and retraining programs. Two States—California and Delaware—have enacted payroll-based taxes, collected through the UI system, to finance retraining of workers. These payroll-based taxes, strictly speaking, are not part of the UI system. Federal law prohibits diversion of any part of the UI tax for any non-UI purpose.

THE FEDERAL ROLE IN RESEARCH, DEVELOPMENT AND TRANSFER OF INSTRUCTIONAL TECHNOLOGY

Instructional technologies, such as computer-assisted instruction and courseware for interactive videodisk systems, play an increasingly prominent role in the delivery of training and education to the work force. Many currently used instructional technologies were developed by or with the support of Federal agencies, and some have been adopted by industry due to their potential to cut training costs and provide uniform quality instruction at diverse locations. Instructional technologies have significant potential for effective use in the delivery of basic skills instruction to adults, and in many vocational training and retraining applications. In several basic education and technical training projects involving the computer, adults have learned very quickly, and in some cases have committed more time to their studies than students taking traditional courses (see ch. 7 for details).

Despite their promise, instructional technologies have not yet come into widespread use in the adult education system. Congress may wish to take steps to encourage greater use of these technologies in meeting the educational and training needs of both employed workers

and displaced workers. The Federal role in research, development, and transfer of new instructional technologies could be expanded through: 1) more effective measures to transfer federally developed training technologies to education and training institutions and to the private sector, 2) greater support for development of new adult basic and vocational training materials for instructional technologies, and 3) establishment of one or more national centers at universities to focus research on how adults learn. (See Issue Area 11, table 2-6.)

Transfer and Diffusion of Federal Training Technologies

Effective and timely transfer of federally developed training technologies to State, local, and private sector education and training institutions can contribute to efforts to upgrade the skills of the U.S. work force. Over the years, the Federal Government has played a major role in developing many training technologies, including computer-based education and training, simulation, and educational applications

Table 2-6.—The Federal Role in Research, Development, and Transfer of Instructional and Training Technology

Issue area and Options	Relationship to other options	Relationship to current policy	Estimated cost of option to Government
<i>Issue Area 11: Encouraging research, development, and transfer of instructional technology</i>			
<p>a) Transfer and diffusion of federal training technologies</p> <p>Require the executive branch to establish a specific mechanism to facilitate the transfer and adoption of federally developed training materials and technologies by public education and training institutions, and the private sector. One legislative proposal before the 99th Congress would establish a Department of Commerce Office of Training Technology Transfer and require other agencies to appoint a training technology transfer officer. An inventory would be made of current and proposed Federal training technologies (defined as computer software developed for training). A mechanism for private sector involvement in financing the conversion of training technologies to non-Federal public interest users of these technologies is provided.</p>	<p>Option could be implemented in conjunction with (b) or (c) below. Option also can be seen as facilitating rapid adoption of new training, education, and instructional technologies for JTPA Title III projects, and also could serve as a possible mechanism for transfer of adult basic education and vocational education instructional technologies to industry and public education systems (See Issues Areas 3, 8, 9 and 10.)</p>	<p>A generic Federal technology transfer mechanism is provided in the Stevenson-Wylder Technology Innovation Act of 1980 (Public Law 96-480)</p>	<p>Legislative proposal for training technology transfer in the 99th Congress would authorize up to \$3 million annually. This is substantially less than an earlier proposal in the 98th Congress, which proposed direct grants for conversion of federally developed technologies to non-Federal uses. Under the approach proposed in the 99th Congress, the private sector—not the Federal Government—would assume the costs of modifying training technologies so that they could be used in non-Federal applications by non-profit organizations. (In return, for-profit organizations making such conversions would be provided certain benefits, such as reduced fees or exclusive marketing rights.)</p>
<p>b) Federal support for research and development on instructional technology.</p> <p>In addition to continued support for research on the next generation of instructional technologies, Congress could earmark some funds specifically for the development and application of instructional courseware for adult basic skills. (This funding would be in addition to basic skills R&D now undertaken by the Department of Defense.)</p>	<p>Could be adopted in conjunction with (a) and (c), and would also support other 'basic skills' Options (See issue areas 3, 8, and 10.)</p>	<p>Section 309 of the Adult Education Act (as amended in 1984, Public Law 98-511) could be used to support development of courseware oriented to adults. However, 309 funds may not be set aside for this purpose unless appropriations under AEA are at least \$112 million (Funds for AEA in FY 85 amounted to \$102 million.) The Department of Commerce is currently considering whether a need exists for evaluation of interactive videodisc systems to deliver basic skills as part of its effort to improve productivity in the labor force.</p>	<p>Outside of the Department of Defense, government funding for basic skills courseware for adults is very modest, probably less than \$2 million, including State activities funded under AEA. Doubling the current level of funding would cost about \$4 million per year.</p>
<p>c) Support for research and evaluation on adult learning.</p> <p>One option would be to fund one or more national centers for research on adult learning with a special focus on adult literacy. The centers could be affiliated with universities.</p>	<p>Could be adopted in conjunction with other basic skills options.</p>	<p>While no center on adult learning exists, a new national center on education and employment is expected to be established through the support of the Department of Education, this or other centers could focus some research on adult learning.</p>	<p>If the center concept explored here is adopted, a small amount of funding (say \$1 million by the Federal Government annually) could be used to identify and provide partial funding for adult learning research. Some funding support could be sought by the center from industry and other government programs. The center could also be assigned responsibility for evaluation of some new courseware for basic skills.</p>

SOURCE: Office of Technology Assessment

for interactive videodisk technologies. As research and development sponsored by the Federal Government continues, new applications for training technologies that have promise for use in training by private industry and by educational institutions are being developed.

Several Federal agencies, including DOD, NSF, and the Department of Education (ED), support research and development on new training and educational technologies. Currently, DOD has the largest budget for instructional technology. DOD training and education technologies may have broad applicability to many civilian uses, but are not specifically developed for use by the public education system or the private sector, while technology diffusion is a major purpose of NSF and ED activities in this area. Federal R&D activities in this area are discussed in chapter 7.

Several DOD research and development projects related to basic skills have promise for effective use in retraining projects for displaced workers and other adults needing remedial education in order to find and hold good jobs. For example, research projects are now underway in the Naval Personnel Research and Development Center, the Army Research Institute, and elsewhere within DOD that, in different ways, explore the potential of the computer in delivering job-related basic skills instruction. Some work also has been done within the military on adapting interactive videodisk systems to basic skills instruction.

DOD also has developed new training technologies and materials in such areas as maintenance, equipment repair, electronics and a wide variety of other skill areas that are relevant to vocational education and training for jobs in the civilian economy. Some of these projects involve production of training lessons for delivery on interactive videodisk systems. These and other projects, if shown to be effective in the military, may well have potential for conversion to civilian use in time.

Other DOD and NSF research is focused on developing new instructional technologies with potentially far reaching implications for delivery of education and training. Some research

is aimed at developing “authoring” systems for courseware that could bring down the costs and make it easier for trainers and educators to prepare their instructional materials for use on computers and videodisk systems. These and many other promising areas of research have potential for widespread application throughout the education and training system—including new ways to provide instruction to adults.

Effective diffusion of Federal training technologies to non-Federal users is by no means assured. Some of these training technologies are developed to meet the specific internal training needs of the sponsoring agency, and information about the new technologies often is not widely available. In addition, some instructional technologies developed specifically to meet the training needs of an agency or mission may not be useful for other applications without modification. The expense involved in converting these instructional technologies to civilian use may limit the pace of adoption.

One approach for addressing these issues would be for Congress to direct the executive branch to establish a mechanism to transfer Federal training technology (Issue Area 11, option ha). Such a mechanism is proposed in *S.1662*, a bill introduced in the 99th Congress.³⁰ A purpose of the bill would be to facilitate the transfer of Federal training technologies to the private sector and State and local agencies to support education, training, and retraining of industrial workers, especially those working in small businesses.

The bill defines training technology as software for computer-based instruction, interactive videodisks, audiovisual devices, programmed learning kits, and associated manuals and devices. It would establish an Office of Training Technology Transfer within the Department of Commerce’s National Technical Information Service³¹ and would direct all Federal agencies

³⁰S.1662, the proposed Training Technology Transfer Act, was introduced Sept. 19, 1985.

³¹NTIS is also the location for another government-wide technology diffusion office, the Center for Utilization of Federal Technology, mandated by the Stevenson-Wydler Technology Innovation Act of 1980.

that use training technology to designate a training technology transfer officer. The bill would authorize the appropriation of \$3 million in fiscal year 1987, and such sums as may be necessary in each succeeding year to carry out the training technology transfer program.

A function of the training technology transfer office would be to maintain a comprehensive inventory of training technologies developed under the supervision of Federal agencies. The inventory would also provide information about patents, copyrights, or proprietary interests affecting its conversion or transfer.

To facilitate adoption of training technologies by non-Federal users, the bill would encourage for-profit commercial users to finance the conversion of training technologies for use by nonprofit public interest users (schools, colleges, vocational facilities and all agencies under JTPA).³² Specifically, the agency would be authorized to sell or lease training technology to commercial users. Nonprofit users could apply to receive the technology at no cost. In cases where the technology must be modified or converted before it could be used effectively, the public interest user could enter into a cooperative agreement with the commercial user. Commercial users in such agreements, in turn, would be offered favorable terms by the Government (e.g., waiving or reducing prices and lease fees, or exclusive sale or lease arrangements) in return for accomplishing the conversion or modification. (Three conditions would limit the circumstances in which such favorable terms could be granted: the cooperative agreement must call for conversion of the technology by the commercial user to the needs of the public interest groups, the conversion would be performed at no charge to the public interest group, and the agreement must be acceptable by the Director of the Office of Training Technology Transfer.)

Another way to address this issue would be to give training technology transfer higher visibility in the existing mechanism for technol-

³²This is in contrast to a similar training technology transfer proposal introduced (but not enacted) in the 98th Cong., in which the Federal Government was authorized to provide conversion grants.

ogy diffusion set up by the Stevenson-Wydler Technology Innovation Act of 1980 (Public Law 96-480). Public Law 96-480 established a generic apparatus for Federal technology diffusion which applies to most Federal laboratories. While this law has not been fully implemented, its provisions for Offices of Research and Technology Applications within the Federal laboratories and for a Commerce Department clearinghouse for information about Federal technologies have been implemented. While this mechanism could be employed to provide information about Federal training technologies, it has only occasionally been used to transfer a federally developed training technology.³³ Thus, if Congress wishes to give training technology transfer a high degree of visibility, it may wish to establish a specific technology diffusion mechanism.

Development of Instructional Technology for Basic Skills

Very little of the courseware and other instructional materials now used in basic skills programs was developed with mature adults specifically in mind. Even some of the most widely used courseware in adult education projects was developed for young people in the 16- to 21-year age group. Much of the current work on basic skills being conducted by the training and human resource development laboratories of DOD is focused on the young recruit, not the mature adult. Moreover, instructional technologies and courseware developed to meet the specific basic skills needs of the military are not automatically consistent with the objectives of industry and civilian educational institutions. For example, DOD courseware for basic skills is often focused on the narrow objective of teaching the minimal academic skills needed to perform specific jobs. This approach

³³In one case, Public Law 96-480 has been used as the mechanism for diffusion of a federally developed training technology. A computer-assisted reading improvement program that was developed by the Navy has been transferred to two libraries, where it is used in basic literacy programs for adults and high school dropouts. ORTAS in two Army and Navy research laboratories, and the National Commission on Libraries and Information Science, were involved in this technology transfer project (see ch. 7 for details).

might be appropriate when used by firms to upgrade the skill levels of employees. As an overall objective of a local adult education class, however, the approach of linking basic skills instruction narrowly to a specific job is less appropriate.

Little of the instructional technology R & D budget of the Federal Government is aimed at developing general basic skills instructional materials for older, mature adults. This has not been a high priority instructional technology activity in the Department of Education. States are using more funds for instructional technology development under AEA than in the past. In fiscal year 1985, for example, states spent \$1.2 million for technology projects under Section 310 of AEA, twice the amount spent for this purpose in fiscal year 1983. Also, the Fund for the Improvement of postsecondary Education recently made a small grant to a community college for developing, field testing, and validating courseware for adult basic education. The National Institute of Education (NIE) (now part of the Office of Educational Research and Improvement) currently supports a National Center for Educational Technology at Harvard University. However, this center focuses on the elementary and secondary school system, not on adult education. Total R&D expenditures by NIE for educational technology were \$12.7 million from fiscal year 1980 through fiscal year 1985, but only one project was clearly related to adult basic skills.

Given the contribution that improved basic skills courseware might make to adult basic education, additional support for R&D in instructional technologies for basic skills may be appropriate (Issue Area 11, option b). Several alternatives could be pursued. One possibility would be to direct the Secretary of Education to fund such activities through Section 309 of AEA. This would require an annual appropriation for AEA of at least \$112 million—the level needed to trigger a 5-percent set-aside authorized under Section 309 of the law for research, development, demonstration, dissemination, and evaluation projects; another option would be congressional action to remove the \$112 million trigger. To avoid competition for the

limited funds available for delivery of remedial education services under AEA, it may well be that a separately funded mechanism would be needed.

Some other Federal agencies in addition to ED, could play a role in supporting such activities. For example, the Department of Commerce's Office of productivity, Technology, and Innovation is seeking to identify an appropriate demonstration project that would test the effectiveness and costs and benefits of interactive videodisk systems in addressing a major human resource problem for industrial training. It is currently sponsoring a needs assessment study of the potential of interactive videodisks in dealing with functional illiteracy. If the needs assessment study shows that further work would be desirable, the Department may need additional funding to proceed. As is discussed in chapter 7, the interactive videodisk has substantial promise in adult basic skills instruction, especially if courseware appropriate to adults can be developed. Finally, DOD and other Federal agencies from time to time have conducted evaluations of instructional technologies. Making the results of such evaluations widely available would be one way to improve knowledge about instructional technology.

Support for Research and Evaluation on Adult Learning

Besides emphasizing the transfer of training technologies and the development of courseware for mature adults, Congress may also wish to consider options to encourage more research on the nature of the adult learning process. Currently, little research is focused on such questions as how to design curricula and instructional approaches so that they are appropriate for adults, how to measure functional literacy levels among adults, and how to evaluate adult performance in educational programs. Moreover, educational researchers have given little attention to the adult learner in undertaking evaluations of different forms of instructional technologies. These and other issues could be addressed through a research

program focused specifically on the adult learner” (Issue Area II, option c).

Greater attention by the research community to the subject of adult learning could lead to medium and long-term benefits, such as more effective programs for basic skills, continuing education, and worker training and retraining—all important issues in maintaining the skill level of a work force that will be composed of increasing numbers of older workers in the years to come. Therefore, congress may wish to consider measures to focus greater attention on adults in learning research, particularly research related to basic skills. This could be done in conjunction with, or separately from,

³⁴A legislative proposal for such a program is contained in H.R. 3700, the proposed Higher Education Amendments Act of 1985 as reported by the House Committee on Education and Labor on Nov. 20, 1985. Section 122 of H.R. 3700 would establish a program of grants to eligible institutions for adult learning research and research application.

the training technology transfer and courseware development options described above.

One option would be for congress to direct ED to charter one or more national research centers for adult learning and basic skills. It would also be possible to earmark some research funds for adult learning at existing research centers. For example, ED is considering several proposals for new research centers for education, including a proposed National Center for Education and Employment, which would address continuing education as one of its areas of concern. However, establishment of one or more new national centers devoted specifically to research on adult learning and basic skills would focus research, and give greater attention to the importance of this subject in the educational community. Federal funding for the centers could be kept at a modest level—say under \$1 million per year.